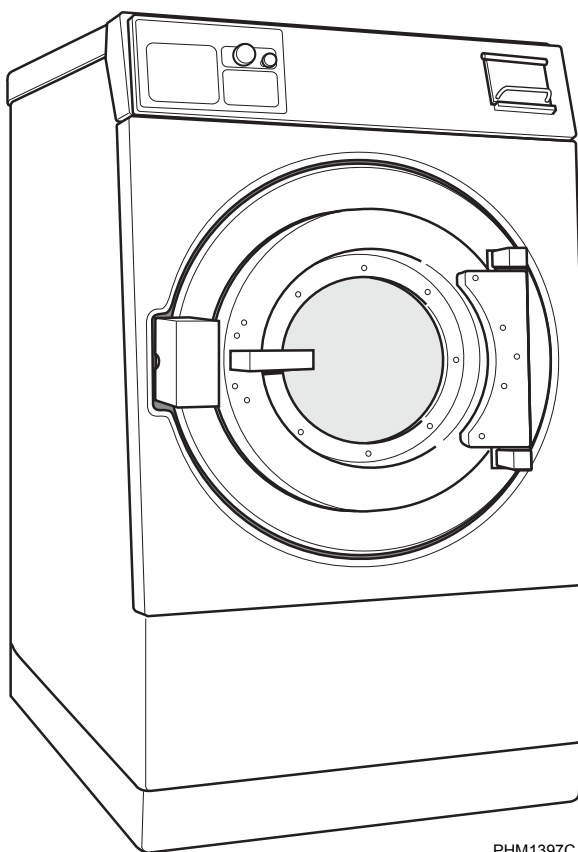


# Washer-Extractors

Pocket Hardmount Variable-Speed

Refer to Page 6 for Model Identification



PHM1397C

Installation/Operation/Maintenance

## Original Instructions

**Keep These Instructions for Future Reference.**

(If this machine changes ownership, this manual must accompany machine.)



[www.alliancelaudry.com](http://www.alliancelaudry.com)

Part No. C003292ENR1  
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# Safety Information

## Explanation of Safety Messages

Precautionary statements (“DANGER,” “WARNING,” and “CAUTION”), followed by specific instructions, are found in this manual and on machine decals. These precautions are intended for the personal safety of the operator, user, servicer, and those maintaining the machine.

	<b>DANGER</b>
<b>DANGER indicates an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.</b>	

	<b>WARNING</b>
<b>WARNING indicates a hazardous situation that, if not avoided, could cause severe personal injury or death.</b>	


	<b>CAUTION</b>
<b>CAUTION indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.</b>	

Additional precautionary statements (“IMPORTANT” and “NOTE”) are followed by specific instructions.

**IMPORTANT:** The word “IMPORTANT” is used to inform the reader of specific procedures where minor machine damage will occur if the procedure is not followed.

**NOTE:** The word “NOTE” is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

## Important Safety Instructions

	<b>WARNING</b>
<b>To reduce the risk of fire, electric shock, serious injury or death to persons when using your washer, follow these basic precautions:</b>	
W023	


1. Read all instructions before using the washer.
2. Install the washer according to the INSTALLATION instructions. Refer to the GROUNDING instructions in the INSTALLATION manual for the proper grounding of the washer. All connections for water, drain, electrical power and grounding must comply with local codes and be made by licensed personnel when required. It is recommended that the machine be installed by qualified technicians.
3. Do not install or store the washer where it will be exposed to water and/or weather.
4. To prevent fire and explosion, keep the area around machine free from flammable and combustible products. Do not add the following substances or textiles containing traces of the following substances to the wash water: gasoline, kerosene, waxes, cooking oils, vegetable oils, machine oils, dry-cleaning solvents, flammable chemicals, thinners, or other flammable or explosive substances. These substances give off vapors that could ignite, explode or cause the fabric to catch fire by itself.
5. Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. HYDROGEN GAS IS EXPLOSIVE. If the hot water system has not been used for such a period, before using a washing machine or combination washer-dryer, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. The gas is flammable, do not smoke or use an open flame during this time.
6. To reduce the risk of an electric shock or fire, DO NOT use an extension cord or an adapter to connect the washer to the electrical power source.

## Safety Information


7. Do not allow children to play on or in the washer. Close supervision of children is necessary when the washer is used near children. This appliance is not intended for use by young children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance. This is a safety rule for all appliances.
8. DO NOT reach and/or climb into the tub or onto the washer, ESPECIALLY if the wash drum is moving. This is an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.
9. Never operate the washer with any guards, panels and/or parts removed or broken. DO NOT bypass any safety devices or tamper with the controls.
10. Use washer only for its intended purpose, washing textiles. Never wash machine parts or automotive parts in the machine. This could result in serious damage to the basket or tub.
11. Use only low-sudsing, no-foaming types of commercial detergent. Be aware that hazardous chemicals may be present. Wear hand and eye protection when adding detergents and chemicals. Always read and follow manufacturer's instructions on packages of laundry and cleaning aids. Heed all warnings or precautions. To reduce the risk of poisoning or chemical burns, keep them out of the reach of children at all times (preferably in a locked cabinet).
12. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
13. Always follow the fabric care instructions supplied by the textile manufacturer.
14. Loading door MUST BE CLOSED any time the washer is to fill, tumble or spin. DO NOT bypass the loading door switch by permitting the washer to operate with the loading door open. Do not attempt to open the door until the washer has drained and all moving parts have stopped.
15. Be aware that hot water is used to flush the supply dispenser. Avoid opening the dispenser lid while the machine is running.
16. Do not attach anything to the supply dispenser's nozzles, if applicable. The air gap must be maintained.
17. Do not operate the machine without the water reuse plug or water reuse system in place, if applicable.
18. Be sure water connections have a shut-off valve and that fill hose connections are tight. CLOSE the shut-off valves at the end of each wash day.
19. Keep washer in good condition. Bumping or dropping the washer can damage safety features. If this occurs, have washer checked by a qualified service person.
20. DANGER: Before inspecting or servicing machine, power supply must be turned OFF. The servicer needs to wait for at least 3 minutes after turning the power OFF and needs to check for residual voltage with a voltage meter. The inverter capacitor or EMC filter remains charged with high voltage for some time after powering OFF. This is an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.
21. Do not repair or replace any part of the washer, or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that the user understands and has the skills to carry out. ALWAYS disconnect the washer from electrical, power and water supplies before attempting any service.
22. Disconnect the power cord by grasping the plug, not the cord. Replace worn power cords and/or loose plugs. If the supply cord is damaged, it must be replaced by a special cord or assembly available from the service agent.
23. Before the washer is removed from service or discarded, remove the door to the washing compartment.
24. Failure to install, maintain, and/or operate this washer according to the manufacturer's instructions may result in conditions which can produce bodily injury and/or property damage.

**NOTE: The WARNINGS and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining, or operating the washer.**

Any problems or conditions not understood should be reported to the dealer, distributor, service agent or the manufacturer.

	<b>WARNING</b>
<p>Machine installations must comply with minimum specifications and requirements stated in the applicable Installation Manual, any applicable municipal building codes, water supply requirements, electrical wiring regulations and any other relevant statutory regulations. Due to varied requirements and applicable local codes, this machine must be installed, adjusted, and serviced by qualified maintenance personnel familiar with applicable local codes and the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury, property damage, and/or equipment damage, and will void the warranty.</p>	
W820	

**IMPORTANT:** Ensure that the recommended clearances for inspection and maintenance are provided. Never allow the inspection and maintenance space to be blocked.


	<b>WARNING</b>
<p>Never touch internal or external steam pipes, connections, or components. These surfaces can be extremely hot and will cause severe burns. The steam must be turned off and the pipe, connections, and components allowed to cool before the pipe can be touched.</p>	
SW014	

## Safety Decals

Safety decals appear at crucial locations on the machine. Failure to maintain legible safety decals could result in injury to the operator or service technician.

Use manufacturer-authorized spare parts to avoid safety hazards.

## Operator Safety

	<b>WARNING</b>
<p><b>NEVER insert hands or objects into basket until it has completely stopped. Doing so could result in serious injury.</b></p>	
SW012	


The following maintenance checks must be performed daily:

1. Verify that all warning signs are present and legible, replace as necessary.
2. Check door interlock before starting operation of machine:
  - a. Attempt to start machine with door open. Machine should not start.
  - b. Close door without locking it and attempt to start machine. Machine should not start.
  - c. Attempt to open door while the cycle is in progress. The door should not open.

If door lock and interlock are not functioning properly, disconnect power and call a service technician.

3. Do not attempt to operate machine if any of the following conditions are present:
  - a. Door does not remain securely locked during entire cycle.
  - b. Excessively high water level is evident.
  - c. Machine is not connected to a properly grounded circuit.

Do not bypass any safety devices in machine.

	<b>WARNING</b>
<p><b>Operating the machine with severe out-of-balance loads could result in personal injury and serious equipment damage.</b></p>	
W728	

## Model Identification

Information in this manual is applicable to these models:

	Medium Speed		High Speed	
<b>40 Pound</b>	CP040PMN1 CP040PMQ1 CP040PMX2 CPC40M IP040PMN1 IP040PMN2	IP040PMQ1 IP040PMX2 IPH40M IPH180	CP040PHN1 CP040PHQ1 CP040PHX2 CPC40H IP040PHN1 IP040PHN2	IP040PHQ1 IP040PHX2 IPH40H JP040PHN1 JP040PHQ1
<b>60 Pound</b>	CP060PMN1 CP060PMQ1 CP060PMX2 CPC60M IP060PMN1 IP060PMQ1 IP060PMX2 IPH60M	IPH270 JP060PMQ1	CP060PHN1 CP060PHN2 CP060PHQ1 CP060PHQ2 CP060PHX1 CP060PHX2 CPC60H IP060PHN1	IP060PHN2 IP060PHQ1 IP060PHX2 IPH60H JP060PHN1 JP060PHN2 JP060PHQ1
<b>80 Pound</b>	CP080PMN1 CP080PMN2 CP080PMQ1 CPC80M IP080PMN1 IP080PMN2	IP080PMQ1 IP080PMQ2 IPH80M IPH370	CP080PHN1 CP080PHN2 CP080PHQ1 CP080PHQ2 CPC80H IP080PHN1	IP080PHN2 IP080PHQ1 IPH80H JP080PHN1 JP080PHN2 JP080PHQ1
<b>100 Pound</b>	CP100PMN1 CP100PMN2 CP100PMQ1 CPC100M IP100PMN1 IP100PMN2	IP100PMQ1 IPH100M IPH460 JP100PMQ1	CP100PHN1 CP100PHN2 CP100PHQ1 CP100PHQ2 CPC100H IP100PHN1	IP100PHN2 IP100PHQ1 IPH100H JP100PHN1 JP100PHN2 JP100PHQ1
<b>125 Pound</b>	Not Applicable		CP125PHN1 CP125PHN2 CP125PHQ1 CP125PHQ2 CPC125H IP125PHN1 IP125PHN2	IP125PHQ1 IP125PHQ2 IPH125H IPH570 JP125PHN1 JP125PHN2
<b>140 Pound</b>	CP140PMN1 CP140PMQ1 CPC140M IP140PMN1	IP140PMQ1 IPH140M IPH640 JP140PMQ1	CP140PHN1 CP140PHQ1 CPC140H IP140PHN1	IP140PHQ1 IPH140H JP140PHN1 JP140PHQ1
<b>175 Pound</b>	Not Applicable		CP175PHN1 CPC175H IP175PHN1 IPH175H	IPH790 JP175PHN1 JP175PHN2



# Introduction

## Delivery Inspection

Upon delivery, visually inspect crate, protective cover and unit for any visible shipping damage. If the crate, protective cover or unit is damaged or signs of possible damage are evident, have the carrier note the condition on the shipping papers before the shipping receipt is signed or advise the carrier of the condition as soon as it is discovered.

## Nameplate Location

The nameplate is located inside the door and on the upper rear panel. Always provide the machine's serial number and model number when ordering parts or when seeking technical assistance. Refer to *Figure 1*.

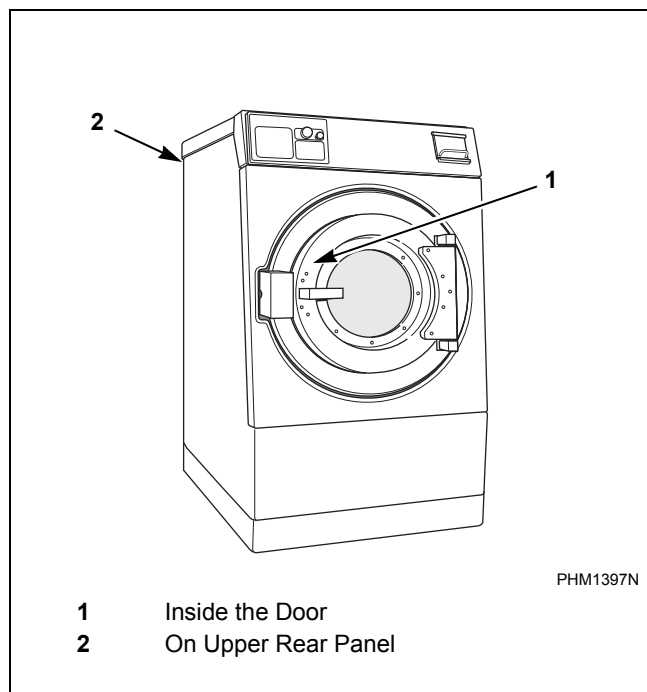


Figure 1

## Replacement Parts

If literature or replacement parts are required, contact the source from which the machine was purchased or contact Alliance Laundry Systems LLC at +1 (920) 748-3950 for the name of the nearest authorized parts distributor.

## Customer Service

For technical assistance, contact your local distributor or contact:

Alliance Laundry Systems  
Shepard Street  
P.O. Box 990  
Ripon, WI 54971-0990  
U.S.A.

[www.alliancelaundry.com](http://www.alliancelaundry.com)

Phone: +1 (920) 748-3121 Ripon, Wisconsin  
+32 56 41 20 54 Wevelgem, Belgium

# Specifications and Dimensions

## High Speed Models

	Models						
Specifications	40H	60H	80H	100H	125H	140H	175H
<b>Overall Dimensions</b>							
Overall Width, in. (mm)	32 (813)	34.5 (876)	42.5 (1080)	42.5 (1080)	50.3 (1278)	50.3 (1278)	50.3 (1278)
Overall Height, in. (mm)	57 (1448)	62.6 (1590)	70 (1778)	70 (1778)	77.1 (1958)	77.1 (1958)	77.1 (1958)
Overall Depth, in. (mm)	45.6 (1158)	47.8 (1214)	51.4 (1306)	56.4 (1433)	56.1 (1425)	59.1 (1501)	64.1 (1628)
<b>Weight and Shipping Information</b>							
Net Weight, lbs. (kg)	1093 (496)	1367 (620)	1908 (865)	1979 (898)	2459 (1115)	2725 (1236)	2963 (1344)
Domestic Shipping Weight, lbs. (kg)	1150 (522)	1424 (646)	2001 (908)	2072 (940)	2557 (1160)	2823 (1280)	3064 (1390)
Domestic Shipping Volume, ft <sup>3</sup> (m <sup>3</sup> )	63 (1.78)	76.9 (2.18)	110 (3.11)	122 (3.45)	160 (4.53)	167 (4.73)	179 (5.07)
<b>Wash Cylinder Information</b>							
Cylinder Diameter, in. (mm)	27 (686)	31 (787)	37 (940)	37 (940)	43 (1092)	43 (1092)	43 (1092)
Cylinder Depth, in. (mm)	19 (483)	22 (559)	21 (533)	26 (660)	24 (610)	27 (686)	32 (813)
Cylinder Volume, ft <sup>3</sup> (l)	6.3 (178.4)	9.6 (271.8)	13.1 (371.0)	16.2 (458.7)	20.1 (569.2)	22.7 (642.8)	26.8 (758.9)
Perforation Size, in. (mm)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)
Cylinder Capacity 1:10 Fill Ratio, lbs. (kg)	39.3 (17.8)	60 (27.2)	81.6 (37)	101 (45.8)	125 (56.7)	141.7 (64.3)	175 (79.4)
<b>Door Opening Information</b>							
Door Opening Size, in. (mm)	15 (381)	17 (432)	20 (508)	20 (508)	24.5 (622)	24.5 (622)	24.5 (622)
Height of Door Bottom Above Floor, in. (mm)	22.5 (572)	25.8 (655)	26.6 (676)	27.1 (688)	31.3 (795)	31.3 (795)	31.3 (795)
<b>Drain System</b>							
Overflow Size, in. (mm)	1.5 (38.1)	1.5 (38.1)	1.5 (38.1)	1.5 (38.1)	3 (76.2)	3 (76.2)	3 (76.2)
Drain Outlet Size, in. (mm)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)
Number of Drain Outlets, (std/opt)	1/2	1/2	1/2	1/2	1/2	1/2	1/2
<b>Water Inlet</b>							
Connection Size	3/4 NPT	3/4 NPT	3/4 NPT	3/4 NPT	3/4 NPT	1-1/4 NPT	1-1/4 NPT
Number of Inlets, (std/opt)	2/3	2/3	2/3	2/3	2/3	2/3	2/3

Table 1 (continued)

Table 1 (continued)

Specifications	Models						
	40H	60H	80H	100H	125H	140H	175H
<b>Chemical Supply System</b>							
Number of Dry Chemical Compartments, (std/opt)	1/5	1/5	1/5	1/5	1/5	1/5	1/5
Number of Liquid Supply Connections, (std/opt)	6/12	6/12	6/12	6/12	6/12	6/12	6/12
<b>Cylinder Speeds/Centrifugal Force Data</b>							
Possible Wash Speeds, RPM (G-Force)	10-60 (0.05-1.4)	10-60 (0.04-1.6)	10-60 (0.05-1.9)	10-60 (0.05-1.9)	10-55 (0.06-1.9)	10-55 (0.06-1.9)	10-55 (0.06-1.9)
Preset Wash Speed, RPM (G-Force)	46 (0.8)	43 (0.8)	39 (0.8)	39 (0.8)	36 (0.8)	36 (0.8)	36 (0.8)
Balance Speed, RPM (G-Force)	81 (2.5)	75 (2.5)	69 (2.5)	69 (2.5)	69 (2.5)	64 (2.5)	64 (2.5)
Preset Low Extract Speed, RPM (G-Force)	511 (100)	477 (100)	437 (100)	437 (100)	405 (100)	405 (100)	405 (100)
Preset Medium Extract Speed, RPM (G-Force)	605 (140)	564 (140)	516 (140)	516 (140)	479 (140)	479 (140)	479 (140)
Preset High Extract Speed, RPM (G-Force)	775 (230)	723 (230)	662 (230)	662 (230)	573 (200)	573 (200)	573 (200)
Maximum SmartSpin Speed, RPM (G-Force)	885 (300)	826 (300)	756 (300)	756 (300)	701 (300)	640 (250)	640 (250)
<b>Drive Train Information</b>							
Number of Motors In Drive Train	1	1	1	1	1	1	1
Drive Motor Power, hp (kW)	3 (2.2)	5 (3.7)	7.5 (5.6)	7.5 (5.6)	10 (7.5)	7.5 (5.6)	15 (11.2)
<b>Balance Detection</b>							
Vibration Switch Installed	STD	STD	STD	STD	STD	STD	STD
<b>Electrical Heating (Optional)</b>							
Total Electrical Heating Capacity, kW	21.5@240V 21.5@480V	32.2@240V 21.5@480V	32.2@240V 21.5@480V	32.2@240V 21.5@480V	Not Applicable	Not Applicable	Not Applicable
Number of Electrical Heating Elements	6 – 240V 6 – 480V	9 – 240V 6 – 480V	9 – 240V 6 – 480V	9 – 240V 6 – 480V	Not Applicable	Not Applicable	Not Applicable
Electrical Heating Element Size, kW	3	3	3	3	Not Applicable	Not Applicable	Not Applicable
<b>Noise Emission</b>							
	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Table 1

## Medium Speed Models

	Models				
Specifications	40M	60M	80M	100M	140M
<b>Overall Dimensions</b>					
Overall Width, in. (mm)	32 (813)	34.5 (876)	42.5 (1080)	42.5 (1080)	50.3 (1278)
Overall Height, in. (mm)	57 (1448)	62.6 (1590)	70 (1778)	70 (1778)	77.1 (1958)
Overall Depth, in. (mm)	45.6 (1158)	47.8 (1214)	51.4 (1306)	56.4 (1433)	59.1 (1501)
<b>Weight and Shipping Information</b>					
Net Weight, lbs. (kg)	1093 (496)	1367 (620)	1908 (865)	1979 (898)	2725 (1236)
Domestic Shipping Weight, lbs. (kg)	1150 (522)	1424 (646)	2001 (908)	2072 (940)	2823 (1280)
Domestic Shipping Volume, ft. <sup>3</sup> (m <sup>3</sup> )	63 (1.78)	76.9 (2.18)	110 (3.11)	122 (3.45)	167 (4.73)
<b>Wash Cylinder Information</b>					
Cylinder Diameter, in. (mm)	27 (686)	31 (787)	37 (940)	37 (940)	43 (1092)
Cylinder Depth, in. (mm)	19 (483)	22 (559)	21 (533)	26 (660)	27 (686)
Cylinder Volume, ft. <sup>3</sup> (l)	6.3 (178.4)	9.6 (271.8)	13.1 (370.1)	16.2 (458.7)	22.7 (642.8)
Perforation Size, in. (mm)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)	0.19 (4.83)
Cylinder Capacity 1:10 Fill Ratio, lbs. (kg)	39.3 (17.8)	60 (27.2)	81.6 (37)	101 (45.8)	141.7 (64.3)
<b>Door Opening Information</b>					
Door Opening Size, in. (mm)	15 (381)	17 (432)	20 (508)	20 (508)	24.5 (622)
Height of Door Bottom Above Floor, in. (mm)	22.5 (572)	25.8 (655)	26.6 (676)	27.1 (688)	31.3 (795)
<b>Drain System</b>					
Overflow Size, in. (mm)	1.5 (38.1)	1.5 (38.1)	1.5 (38.1)	1.5 (38.1)	3 (76.2)
Drain Outlet Size, in. (mm)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)
Number of Drain Outlets, (std/opt)	1/2	1/2	1/2	1/2	1/2
<b>Water Inlet</b>					
Connection Size	3/4 NPT	3/4 NPT	3/4 NPT	3/4 NPT	1-1/4 NPT
Number of Inlets, (std/opt)	2/3	2/3	2/3	2/3	2/3

Table 2 (continued)

Table 2 (continued)

	<b>Models</b>				
<b>Specifications</b>	<b>40M</b>	<b>60M</b>	<b>80M</b>	<b>100M</b>	<b>140M</b>
<b>Chemical Supply System</b>					
Number of Dry Chemical compartments, (std/opt)	1/5	1/5	1/5	1/5	1/5
Number of Liquid Supply Connections, (std/opt)	6/12	6/12	6/12	6/12	6/12
Liquid Supply Connection Size	1/2 NPT	1/2 NPT	1/2 NPT	1/2 NPT	1/2 NPT
<b>Drive Train Information</b>					
Number of Motors In Drive Train	1	1	1	1	1
Drive Motor Power, hp (kW)	3 (2.3)	3 (2.3)	5 (3.7)	5 (3.7)	7.5 (5.6)
<b>Cylinder Speeds/Centrifugal Force Data</b>					
Possible Wash Speed, RPM (G-Force)	10-60 (0.05-1.4)	10-60 (0.04-1.6)	10-60 (0.05-1.9)	10-60 (0.05-1.9)	10-55 (0.06-1.9)
Preset Wash Speed, RPM (G-Force)	46 (0.8)	43 (0.8)	39 (0.8)	39 (0.8)	36 (0.8)
Balance Speed, RPM (G-Force)	81 (2.5)	75 (2.5)	69 (2.5)	69 (2.5)	64 (2.5)
Preset Low Extract Speed, RPM (G-Force)	361 (50)	337 (50)	309 (50)	309 (50)	286 (50)
Preset Medium Extract Speed, RPM (G-Force)	443 (75)	413 (75)	378 (75)	378 (75)	351 (75)
Preset High Extract Speed, RPM (G-Force)	511 (100)	477 (100)	437 (100)	437 (100)	405 (100)
Maximum SmartSpin Speed, RPM (G-Force)	626 (150)	584 (150)	535 (150)	535 (150)	496 (150)
<b>Balance Detection</b>					
Vibration Switch Installed	STD	STD	STD	STD	STD
<b>Electrical Heating (Optional)</b>					
Total Electrical Heating Capacity, kW	21.5@240V 21.5@480V	32.2@240V 21.5@480V	32.2@240V 21.5@480V	32.2@240V 21.5@480V	Not Applicable
Number of Electrical Heating Elements	6 – 240V 6 – 480V	9 – 240V 6 – 480V	9 – 240V 6 – 480V	9 – 240V 6 – 480V	Not Applicable
Electrical Heating Element Size, kW	3	3	3	3	Not Applicable
<b>Noise Emission</b>					
	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Table 2

## Specifications and Dimensions

### Machine Dimensions

#### *Dimensional Clearances*

Allow 24 inches (600 mm) at the rear of the machine and 18 inches (450 mm) is recommended at the sides for maintenance, inspection and adjustment.

In multiple installations, allow 18 inches (450 mm) between machines. Machine dimensions are indicated in *Figure 2* through *Figure 8*. For minimum clearances, refer to *Figure 9*.

# 40 Pound Models

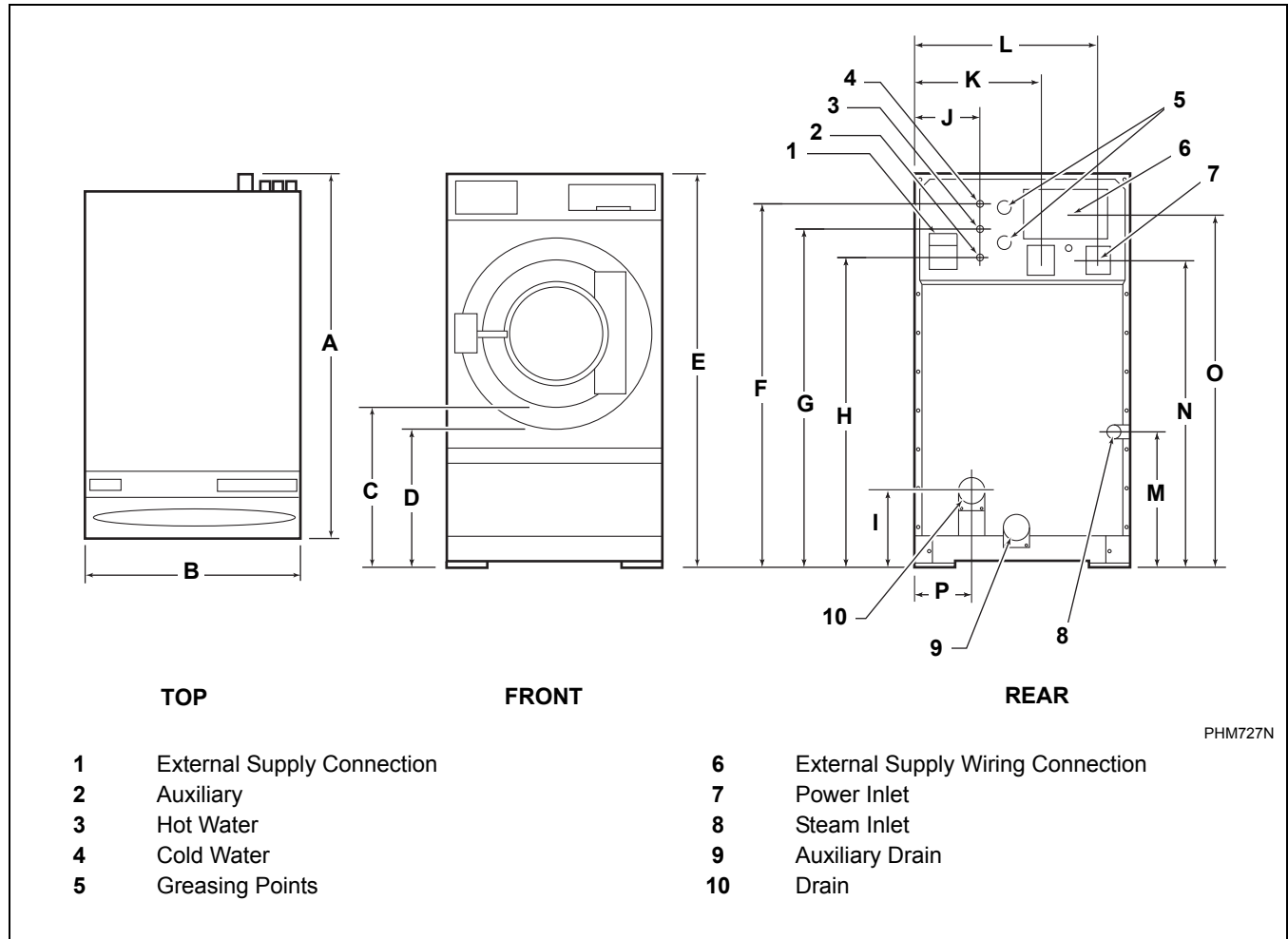


Figure 2

<b>A</b>	45.6 in. (1158 mm)	<b>I</b>	11.7 in. (297 mm)
<b>B</b>	32 in. (813 mm)	<b>J</b>	10.25 in. (260 mm)
<b>C</b>	25.5 in. (648 mm)	<b>K</b>	19.35 in. (491 mm)
<b>D</b>	22.5 in. (572 mm)	<b>L</b>	27.93 in. (709 mm)
<b>E</b>	57 in. (1448 mm)	<b>M</b>	21.8 in. (554 mm)
<b>F</b>	52 in. (1321 mm)	<b>N</b>	43 in. (1092 mm)
<b>G</b>	48 in. (1219 mm)	<b>O</b>	51.4 in. (1306 mm)
<b>H</b>	44 in. (1118 mm)	<b>P</b>	8.88 in. (226 mm)

Table 3

Specifications and Dimensions

60 Pound Models

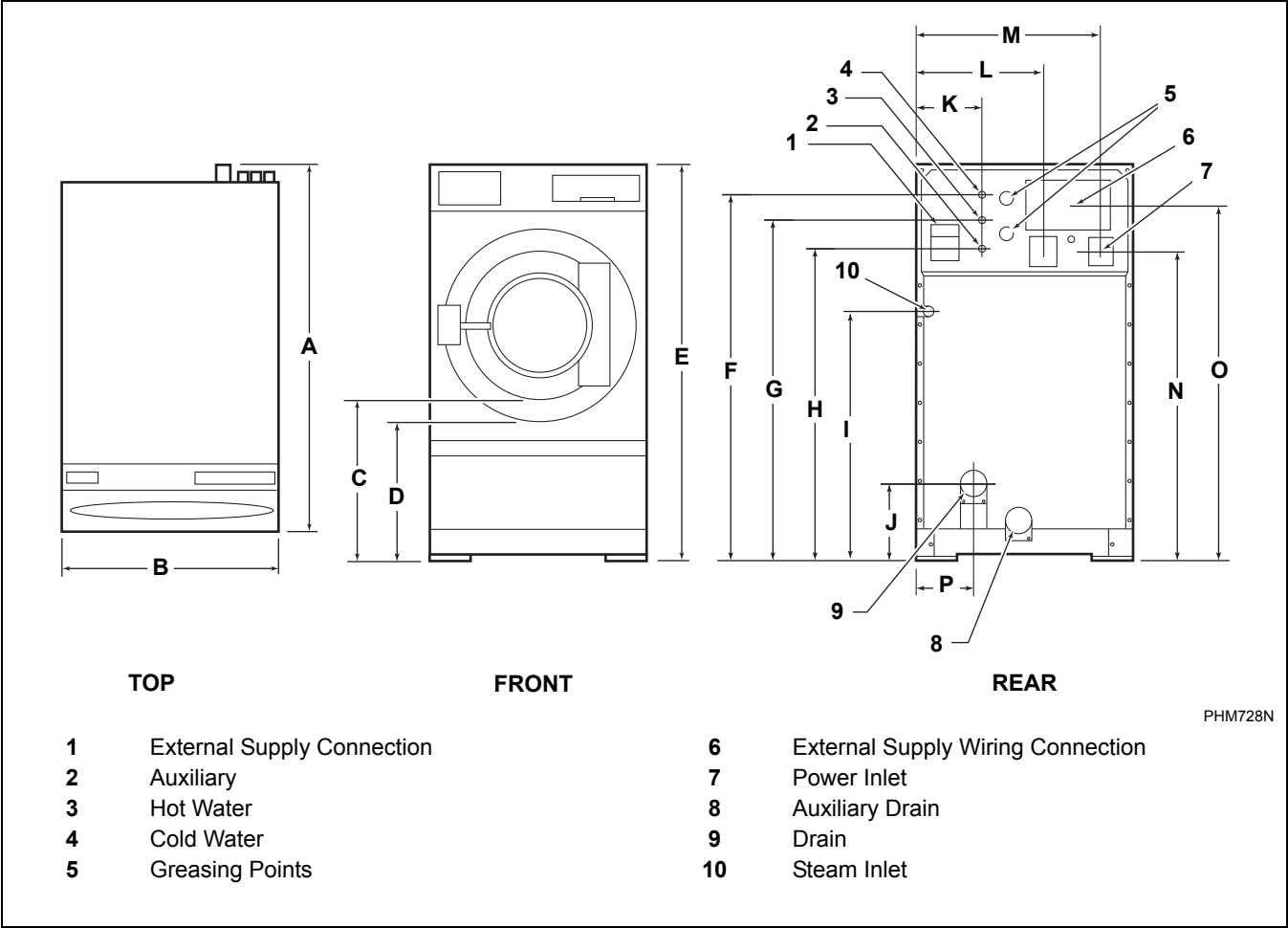


Figure 3

<b>A</b>	47.8 in. (1214 mm)	<b>I</b>	38.5 in. (978 mm)
<b>B</b>	34.5 in. (876 mm)	<b>J</b>	11.7 in. (297 mm)
<b>C</b>	28.8 in. (732 mm)	<b>K</b>	11.5 in. (292 mm)
<b>D</b>	25.8 in. (655 mm)	<b>L</b>	21.1 in. (536 mm)
<b>E</b>	62.6 in. (1590 mm)	<b>M</b>	29.69 in. (754 mm)
<b>F</b>	57.62 in. (1464 mm)	<b>N</b>	48.6 in. (1234 mm)
<b>G</b>	53.62 in. (1362 mm)	<b>O</b>	57.1 in. (1450 mm)
<b>H</b>	49.62 in. (1260 mm)	<b>P</b>	9.63 in. (245 mm)

Table 4



## 80 Pound Models

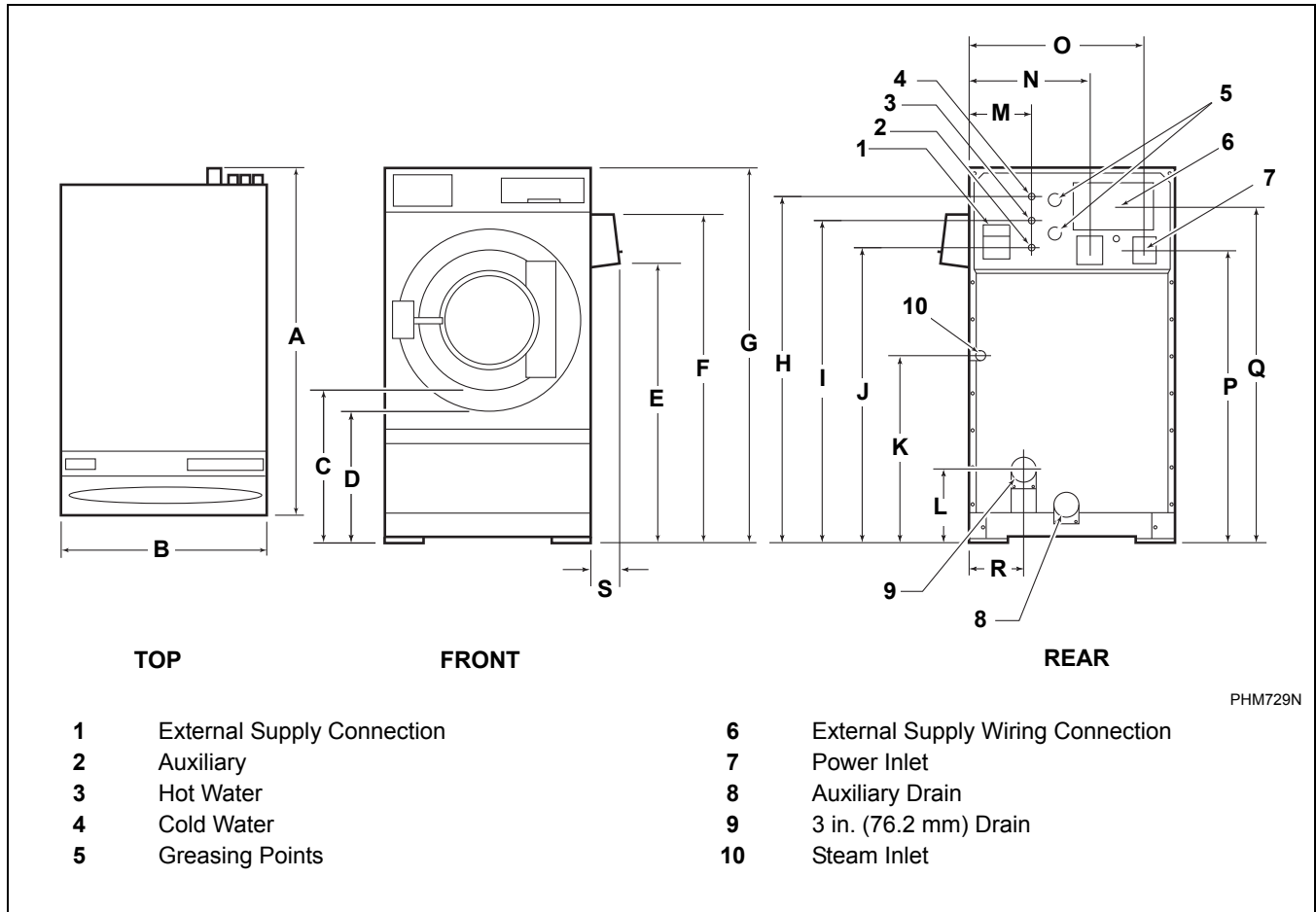


Figure 4

<b>A</b>	51.4 in. (1306 mm)	<b>K</b>	38.4 in. (975 mm)
<b>B</b>	42.5 in. (1080 mm)	<b>L</b>	11.7 in. (297 mm)
<b>C</b>	29.6 in. (752 mm)	<b>M</b>	12.25 in. (311 mm)
<b>D</b>	26.6 in. (676 mm)	<b>N</b>	29 in. (737 mm)
<b>E</b>	52 in. (1321 mm)	<b>O</b>	37.7 in. (958 mm)
<b>F</b>	61.5 in. (1562 mm)	<b>P</b>	56 in. (1422 mm)
<b>G</b>	70 in. (1778 mm)	<b>Q</b>	64.4 in. (1636 mm)
<b>H</b>	66 in. (1676 mm)	<b>R</b>	12 in. (305 mm)
<b>I</b>	62 in. (1575 mm)	<b>S</b>	6 in. (152 mm)
<b>J</b>	58 in. (1473 mm)		

Table 5

Specifications and Dimensions

100 Pound Models

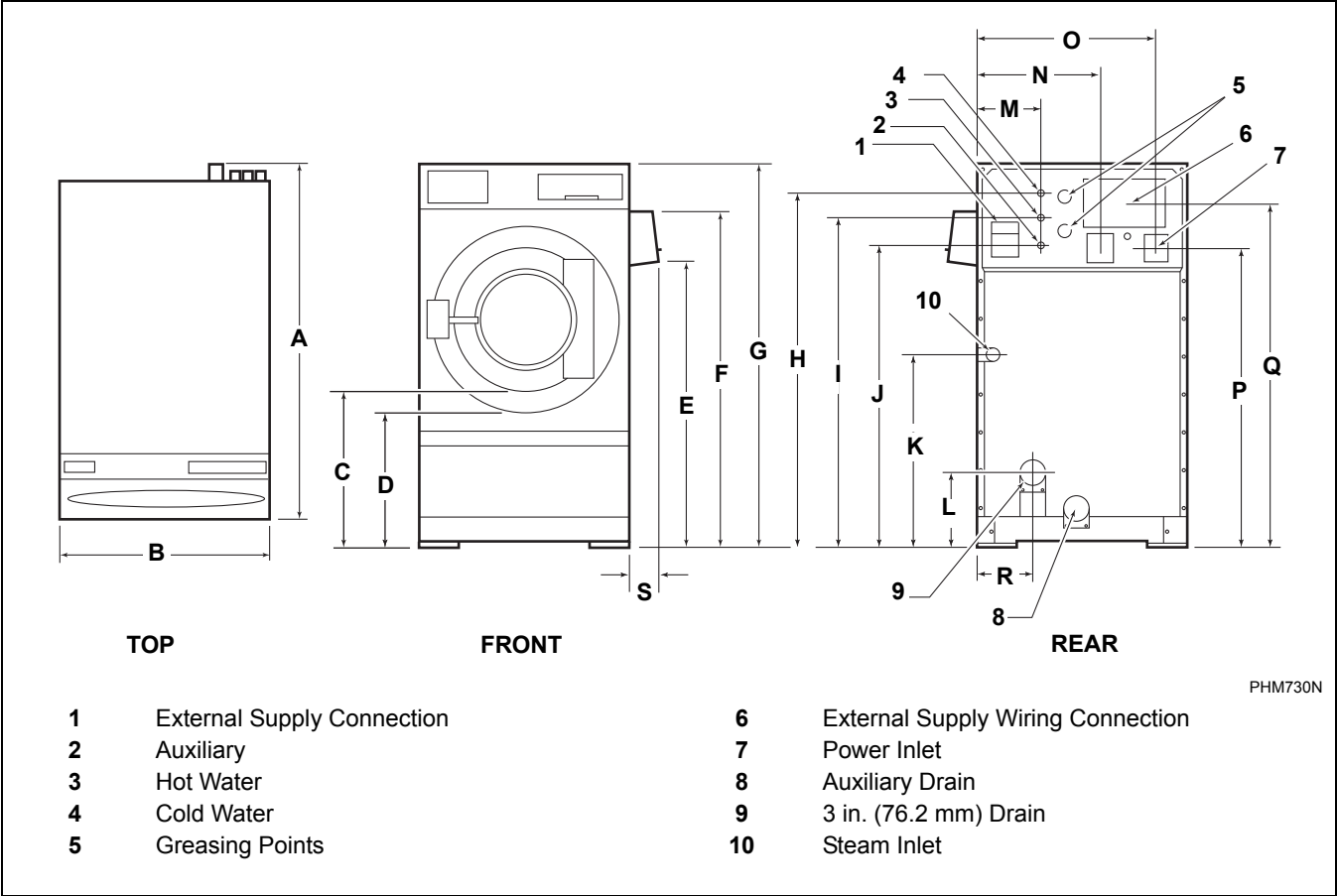


Figure 5

<b>A</b>	56.4 in. (1433 mm)	<b>K</b>	38.4 in. (975 mm)
<b>B</b>	42.5 in. (1080 mm)	<b>L</b>	11.7 in. (297 mm)
<b>C</b>	30.12 in. (765 mm)	<b>M</b>	12.25 in. (311 mm)
<b>D</b>	27.13 in. (689 mm)	<b>N</b>	29 in. (737 mm)
<b>E</b>	52 in. (1321 mm)	<b>O</b>	37.7 in. (958 mm)
<b>F</b>	61.5 in. (1562 mm)	<b>P</b>	56 in. (1422 mm)
<b>G</b>	70 in. (1778 mm)	<b>Q</b>	64.4 in. (1636 mm)
<b>H</b>	66 in. (1676 mm)	<b>R</b>	12 in. (305 mm)
<b>I</b>	62 in. (1575 mm)	<b>S</b>	6 in. (152 mm)
<b>J</b>	58 in. (1473 mm)		

Table 6

## 125 Pound Models

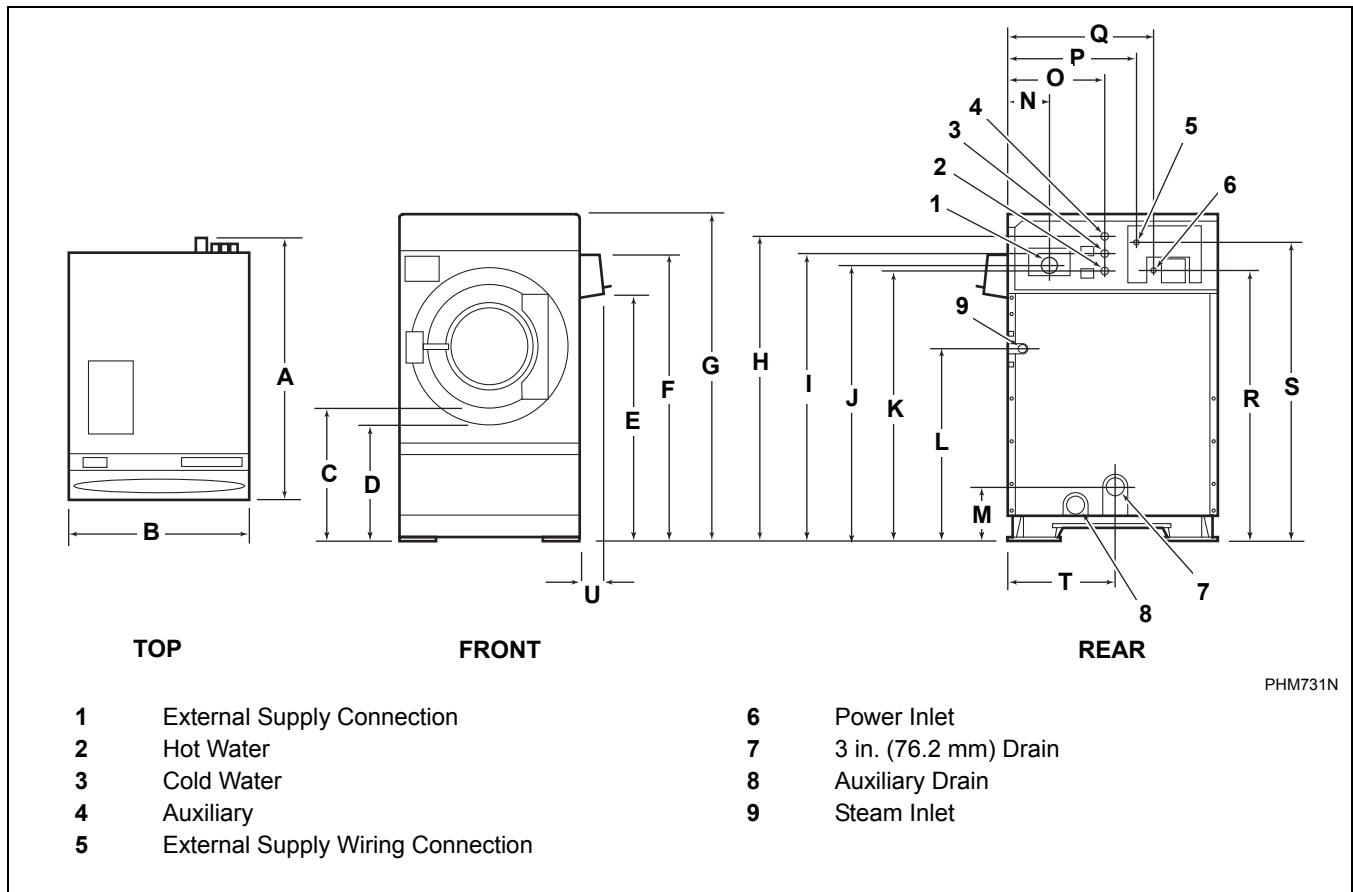


Figure 6

<b>A</b>	56.1 in. (1425 mm)	<b>L</b>	45.3 in. (1151 mm)
<b>B</b>	50.3 in. (1278 mm)	<b>M</b>	11.6 in. (295 mm)
<b>C</b>	34.3 in. (871 mm)	<b>N</b>	6.7 in. (170 mm)
<b>D</b>	31.3 in. (795 mm)	<b>O</b>	18.1 in. (460 mm)
<b>E</b>	58 in. (1473 mm)	<b>P</b>	28.8 in. (732 mm)
<b>F</b>	67.6 in. (1717 mm)	<b>Q</b>	31.1 in. (790 mm)
<b>G</b>	77.1 in. (1958 mm)	<b>R</b>	63.8 in. (1621 mm)
<b>H</b>	71.7 in. (1821 mm)	<b>S</b>	70.2 in. (1783 mm)
<b>I</b>	67.7 in. (1720 mm)	<b>T</b>	19.4 in. (493 mm)
<b>J</b>	64.5 in. (1638 mm)	<b>U</b>	6 in. (152 mm)
<b>K</b>	63.7 in. (1618 mm)		

Table 7

## Specifications and Dimensions

### 140 Pound Models

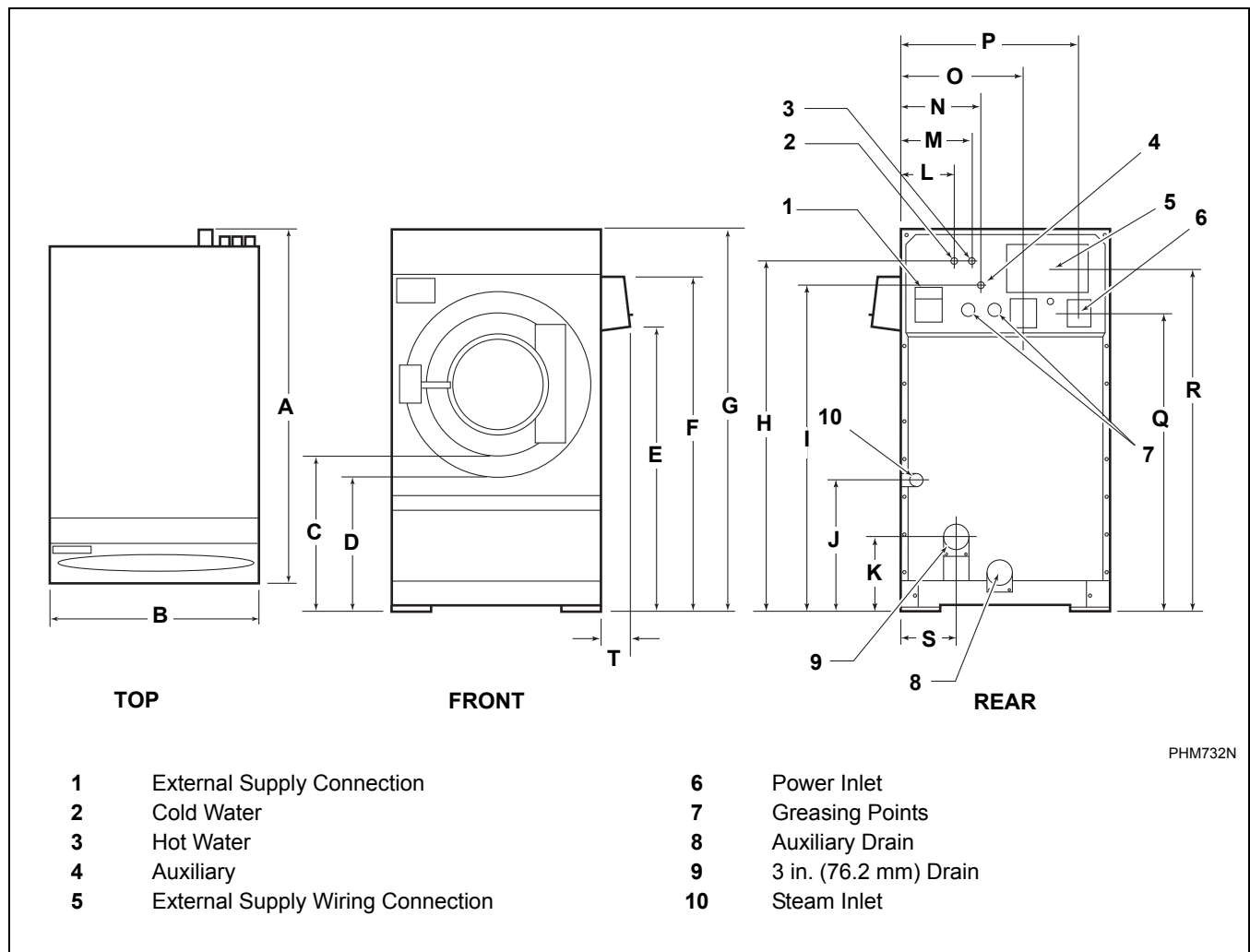


Figure 7

<b>A</b>	59.1 in. (1501 mm)	<b>K</b>	11.7 in. (297 mm)
<b>B</b>	50.3 in. (1278 mm)	<b>L</b>	12 in. (305 mm)
<b>C</b>	34.3 in. (871 mm)	<b>M</b>	15.18 in. (386 mm)
<b>D</b>	31.3 in. (795 mm)	<b>N</b>	17 in. (432 mm)
<b>E</b>	58 in. (1473 mm)	<b>O</b>	36.7 in. (932 mm)
<b>F</b>	67.6 in. (1717 mm)	<b>P</b>	45.26 in. (1150 mm)
<b>G</b>	77.1 in. (1958 mm)	<b>Q</b>	56 in. (1422 mm)
<b>H</b>	70.8 in. (1798 mm)	<b>R</b>	64.4 in. (1636 mm)
<b>I</b>	65.7 in. (1669 mm)	<b>S</b>	19.3 in. (490 mm)
<b>J</b>	45.5 in. (1156 mm)	<b>T</b>	6 in. (152 mm)

Table 8

# 175 Pound Models

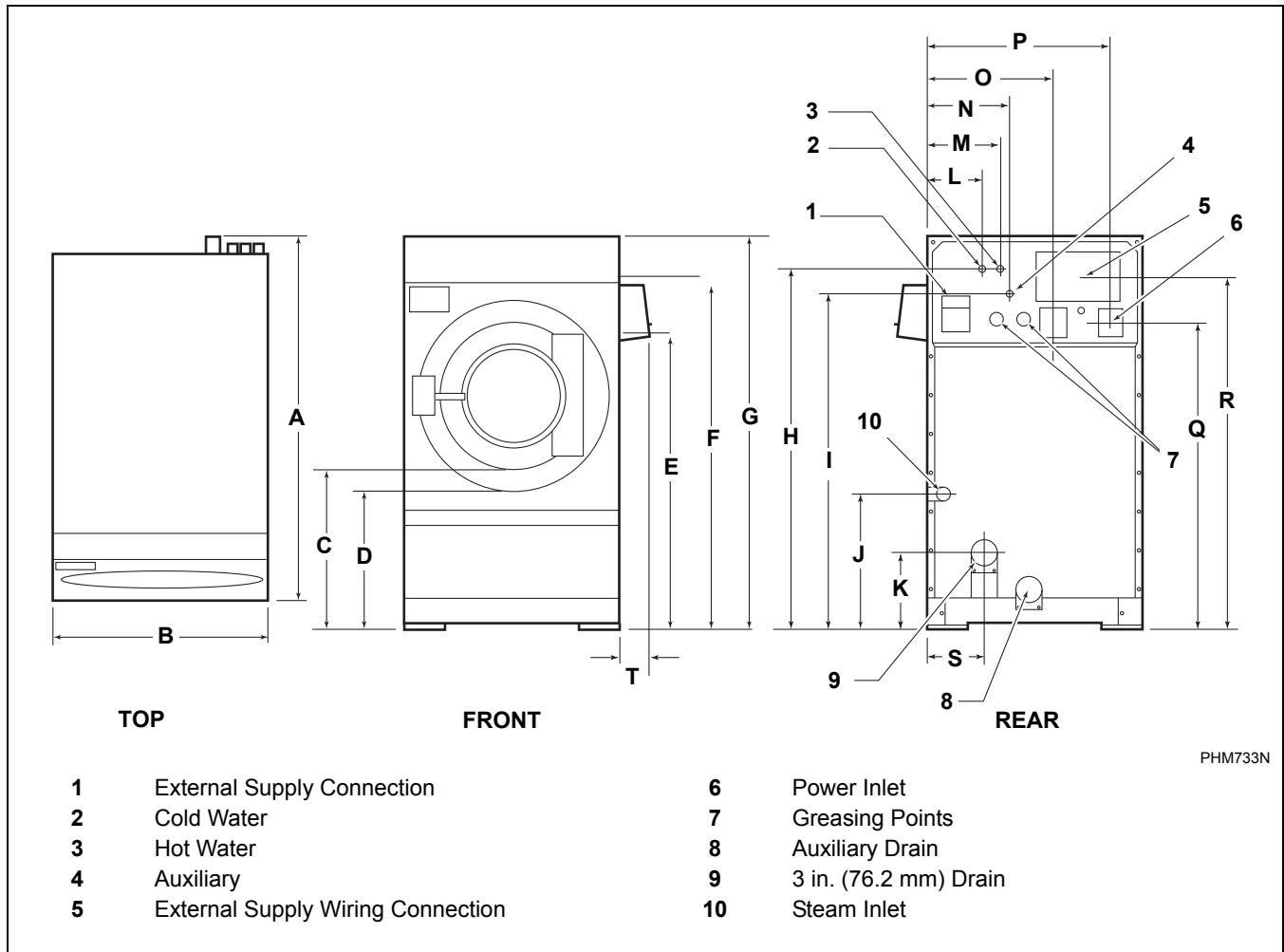


Figure 8

<b>A</b>	64.1 in. (1628 mm)	<b>K</b>	11.6 in. (295 mm)
<b>B</b>	50.3 in. (1278 mm)	<b>L</b>	15.6 in. (396 mm)
<b>C</b>	34.3 in. (871 mm)	<b>M</b>	21.6 in. (549 mm)
<b>D</b>	31.3 in. (795 mm)	<b>N</b>	18.6 in. (472 mm)
<b>E</b>	58 in. (1473 mm)	<b>O</b>	28.8 in. (732 mm)
<b>F</b>	67.6 in. (1717 mm)	<b>P</b>	31.1 in. (790 mm)
<b>G</b>	77.1 in. (1958 mm)	<b>Q</b>	63.8 in. (1621 mm)
<b>H</b>	73.2 in. (1859 mm)	<b>R</b>	70.2 in. (1783 mm)
<b>I</b>	66.2 in. (1681 mm)	<b>S</b>	19.4 in. (493 mm)
<b>J</b>	45.3 in. (1151 mm)	<b>T</b>	6 in. (152 mm)

Table 9

## Specifications and Dimensions

### Floor Load Data

Machine Size	Basket Diameter	Net Wt. of Machine (lbs.)	Height of Basket Center (in.)	Max RPM	G Cal- culated	Static Load (lbs.)	Static Floor Pressure (lbs./ft <sup>2</sup> )	Dynamic Load (lbs.)	Max Vertical Load (lbs.)	Max Dynamic Floor Pressure (lbs./ft <sup>2</sup> )	Base Moment (lbs./ft.)	Load Freq (Hz)
40M 100G	27	1583	33.35	511	100	1701	179	786	2440	256.8	2185	8.52
40M 150G	27	1583	33.35	625	149.6	1701	179	706	2359	248.3	1961	10.42
40H 230G	27	1690	33.35	775	230	1808	190.3	1808	3569	375.7	5025	12.92
40H 300G	27	1690	33.35	885	300	1808	190.3	1415	3175	334.2	3931	14.75
60M 100G	31	1627	37.2	477	100	1807	170.9	1201	2936	277.7	3722	7.95
60M 150G	31	1627	37.2	585	150.5	1807	170.9	1083	2818	266.6	3359	9.75
60H 230G	31	1795	37.2	723	229.9	1975	186.8	2758	4661	440.9	8551	125
60H 300G	31	1795	37.2	826	300	1975	186.8	2160	4063	384.3	6696	13.77
80M 100G	37	1766	40	437	100.2	2011	139.2	1636	3549	245.7	5452	7.28
80M 150G	37	1766	40	535	150.2	2011	139.2	1471	3384	234.3	4903	8.92
80H 230G	37	1926	40	662	230	2171	150.3	3754	5826	403.5	12512	11.03
80H 300G	37	1926	40	756	300	2171	150.3	2937	5010	346.9	9791	12.6
100M 100G	37	2007	40.3	437	100.2	2310	145.1	2025	4213	264.7	6799	7.28
100M 150G	37	2007	40.3	535	150.2	2310	145.1	1821	4009	251.9	6114	8.52
100H 230G	37	2167	40.3	662	230	2470	155.2	4646	6995	439.4	15603	11.03
100H 300G	37	2167	40.3	756	300	2470	155.2	3635	5984	375.9	2209	12.6
125H 200G	43	2749	46.5	573	200.3	3124	165.8	5006	7980	423.6	19400	9.55
125H 300G	43	2749	46.5	701	299.7	3124	165.8	4496	7470	396.5	17421	11.68
140M 100G	43	2749	46.8	405	100	3174	155.5	2835	5839	286	11057	6.75
140M 150G	43	2749	46.8	500	152.5	3174	155.5	2593	5597	274.2	10112	8.33
140H 200G	43	3027	46.8	573	200.3	3452	169.1	5675	8957	438.8	22134	9.55
140H 250G	43	3027	46.8	640	249.8	3452	169.1	4248	7530	368.9	16567	10.67
175H 200G	43	3450	46.8	573	200.3	3975	166.6	7009	10774	451.5	27335	9.56
175H 250G	43	3450	46.8	640	249.8	3975	166.6	5246	9011	377.6	20461	10.67

Table 10

## Installation Instructions


### Surface

These machines must be securely anchored on a solid, flat reinforced concrete surface capable of withstanding the weight of the machine and the considerable forces generated during the spin/extract cycle. Surface should be a high quality concrete (minimum 3500 psi test strength) and at least 12 in. (305 mm) thickness for all models. The surface should be clean, flat and free of irregularities. The pad should be 12 in. (305 mm) larger than the footprint of the machine on all sides, beveling out towards the bottom of the pad.

### Anchors

The use of a minimum Grade 5 SAE rated 3/4 inch (19 mm) anchor bolt is recommended for installing machines.

### Mounting


	<b>WARNING</b>
<ul style="list-style-type: none"> <li>• Always mount this machine on a solid, stable ground floor.</li> <li>• Never install a hard mount washer-extractor on an above ground floor or over a basement.</li> <li>• Never use any material between the machine and floor except grout. The use of rubber pads, neoprene or other materials will make the installation unsafe, noisy and will void all warranties.</li> </ul>	
W706	

#### *On Metal Base*

**NOTE:** Installation on a raised metal base is not recommended.

#### *On Concrete*

Refer to *Grouting and Setting Machine* section.

	<b>WARNING</b>
<p>To reduce the risk of fire, serious injury, property damage and/or death, install the machine on a level (within 3/8 inch), uncovered concrete floor of sufficient strength at grade.</p>	
W787	

## Mounting Bolt Installation Requirements

### Location

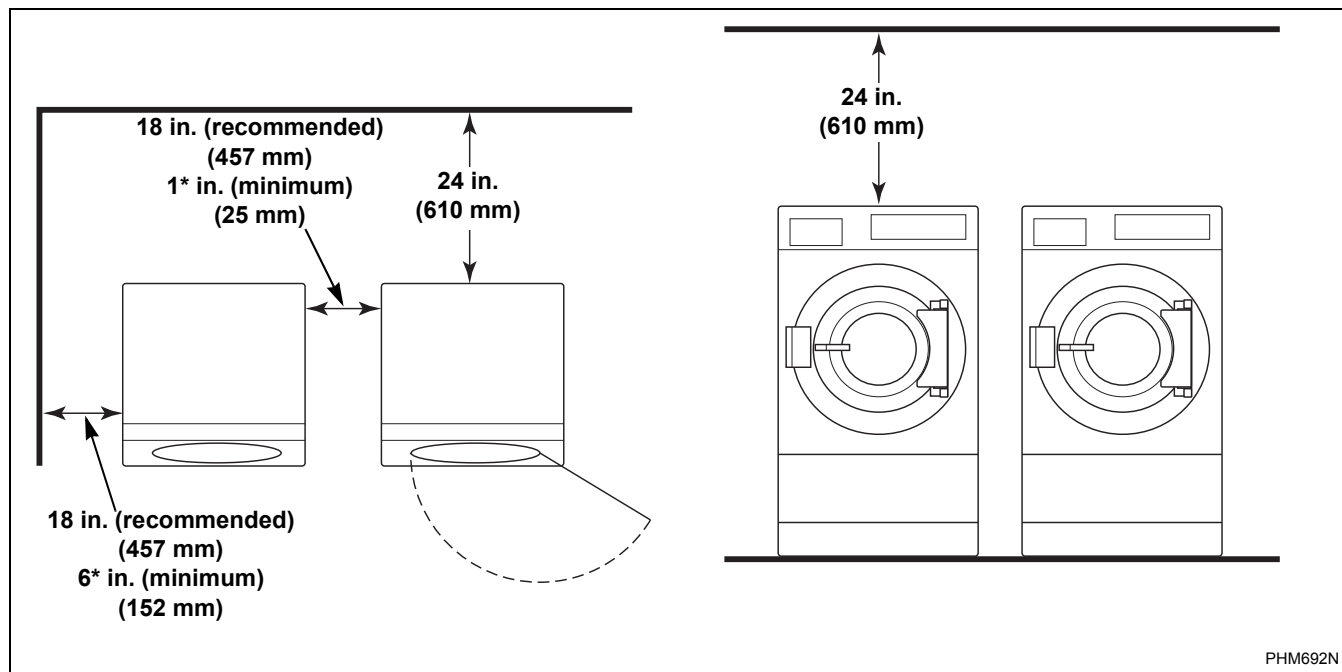
Plan the location of the machines. When placing machines consider the following:

- The loading door is easily accessible to your workers and does not interfere with other equipment.
- Make sure that the machine does not block emergency exits, open doors, work traffic paths, etc.
- There is adequate clearance in front of the machine for operation.
- There is clearance behind and above the machine to safely perform periodic maintenance. Always check local codes. Refer to ***Clearances*** section.

## Specifications and Dimensions

### Clearances

**IMPORTANT:** If the machines are to be mounted less than 18 in. (457 mm) from each other or less than 18 in. (457 mm) from a side wall, only the inside bolt holes will be accessible. If the machines are to be mounted less than 6 in. (152 mm) from each other, a wall or other equipment, they must be installed without using the skirt around the bottom, as it cannot be reinstalled after the machines are in place.



\* When using minimum clearances for installing 80 pound or larger machines, adjustments must be made to include the width of the single-cup (standard) or 5-cup (optional) dispenser mounted on the side of the machine. Refer to *Figure 5* through *Figure 8*.

Figure 9



## Mounting Bolt Hole Locations

Use a sturdy template to guide hammer-drill into floor. A heavy steel template/drill guide is available from your distributor.

Make sure to follow bolt manufacturer's recommendation for bit size for the particular anchors you are using.

The dimensions shown in *Figures 11* through *13* are patterns for various models.

## Installing Anchors

1. Measure holes to verify that they match bolt hole pattern in base of frame.
2. Drill holes for anchor bolts. Refer to *Figure 10*.

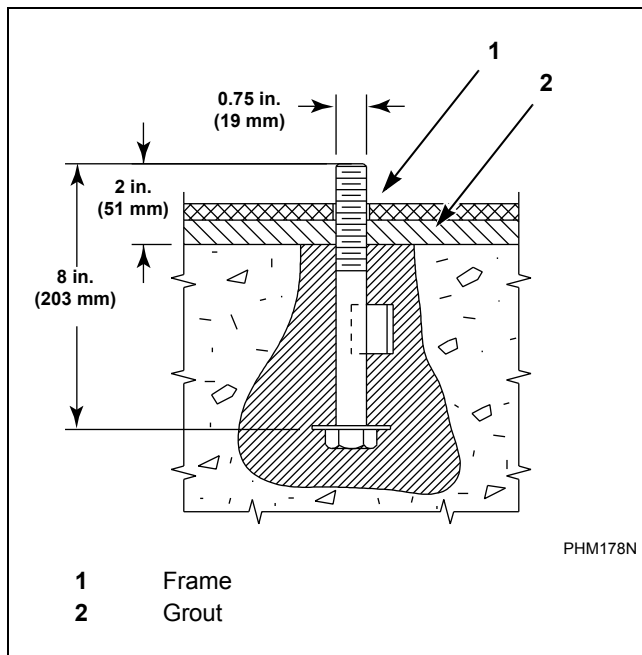


Figure 10

3. Clean out anchor holes and floor around them.
4. Insert anchors and secure them per their manufacturer's installation instructions.

## Grouting and Setting Machine



### WARNING

**Be very careful when lifting and moving machine. If machine falls, serious personal injury or death may result.**

W707

After concrete has cured and anchor bolts are properly set, proceed as follows:

1. Remove two 1/4-20 bolts that secure trim skirt and remove skirt.
2. Carefully position machine over anchor bolts and lower it into place – all anchor bolts should pass through the frame holes easily.
3. Using 4 removable spacers, raise machine about 1/2 in. (13 mm) and level it both front to rear and side-to-side. The machine should rest on 4 points when this operation is completed.
4. Remove rear panel so inside is accessible for grouting.
5. Mix enough machinery grout to fill all spaces between machine base and floor. Grout completely under all frame members. Force grout under machine base until all voids are filled.
6. Before grout has set and become stiff, carefully remove spacers, allowing machine to settle into wet grout.
7. When grout is fully cured, place lock-washers and nuts on anchor studs. Tighten nuts in even increments using a diagonal pattern. This will help insure equal tension at all anchor points.

**NOTE: After machine has been in place and operated for a day, retighten anchor bolts.**

Mounting Bolt Hole Locations

IMPORTANT: All drawings are not to scale.

40 Pound Models

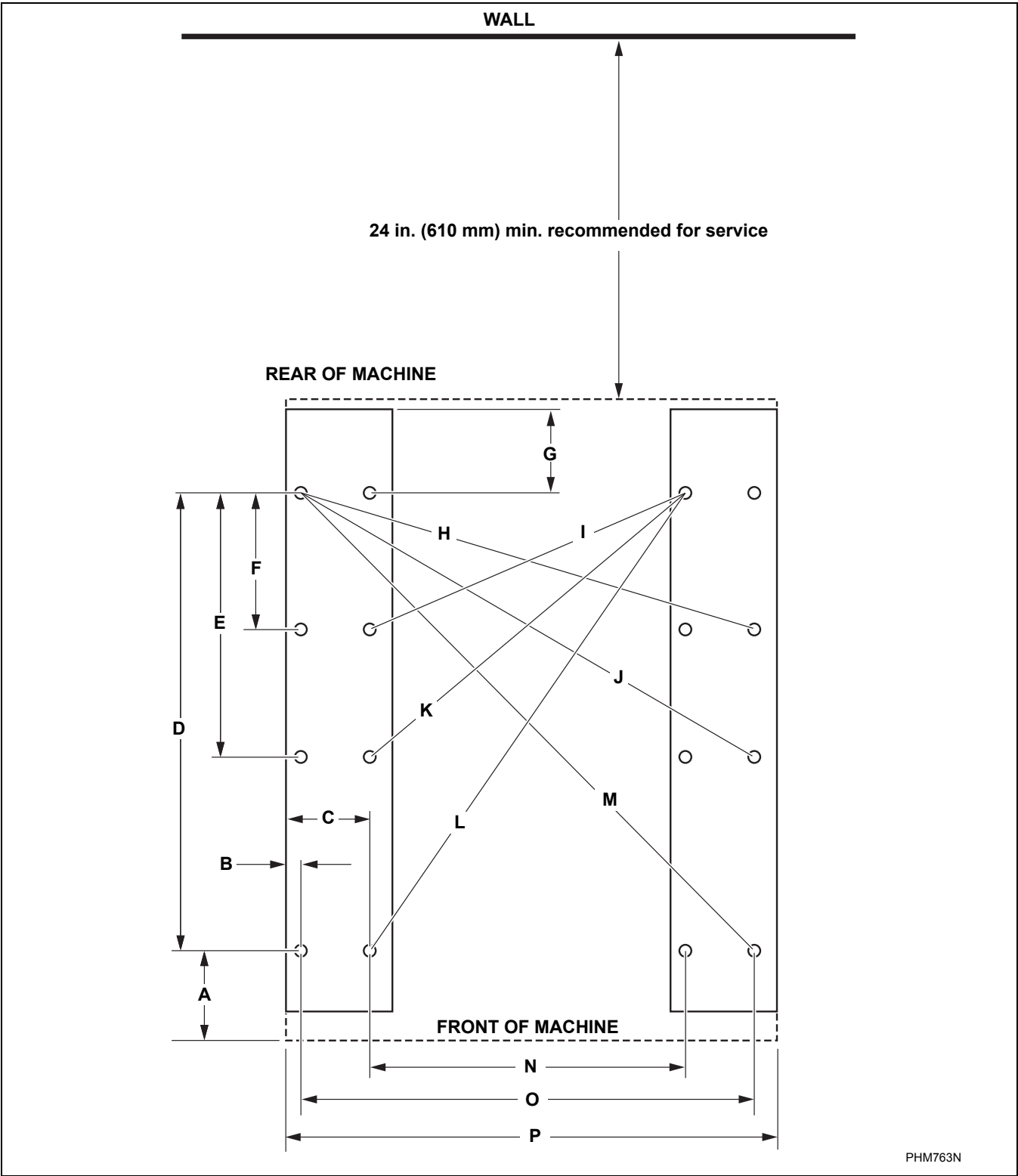


Figure 11

<b>Model</b>	<b>40 Pound</b>
<b>A</b>	4 in. (102 mm)
<b>B</b>	1 in. (25 mm)
<b>C</b>	5.5 in. (140 mm)
<b>D</b>	30.5 in. (775 mm)
<b>E</b>	17.5 in. (445 mm)
<b>F</b>	9 in. (229 mm)
<b>G</b>	5.5 in. (140 mm)
<b>H</b>	31.32 in. (796 mm)
<b>I</b>	22.85 in. (580 mm)
<b>J</b>	34.73 in. (882 mm)
<b>K</b>	27.34 in. (694 mm)
<b>L</b>	37.03 in. (941 mm)
<b>M</b>	42.78 in. (1087 mm)
<b>N</b>	21 in. (533 mm)
<b>O</b>	30 in. (762 mm)
<b>P</b>	32 in. (813 mm)

Table 11

60, 80 and 100 Pound Models

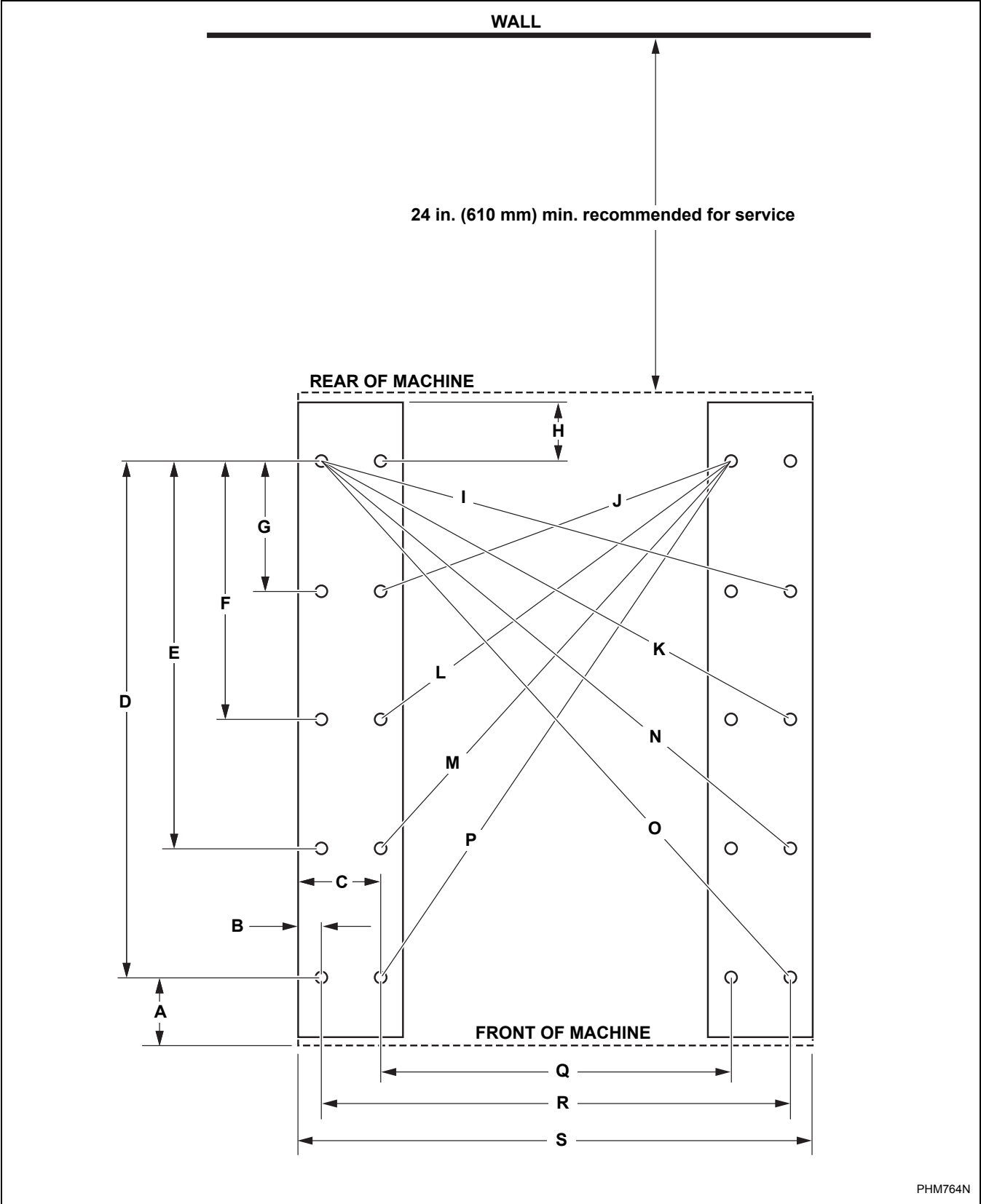


Figure 12

Model	60 Pound	80 Pound	100 Pound
<b>A</b>	4 in. (102 mm)	1.5 in. (38 mm)	6.5 in. (165 mm)
<b>B</b>	1.5 in. (38 mm)	1.5 in. (38 mm)	1.5 in. (38 mm)
<b>C</b>	5.5 in. (140 mm)	7 in. (178 mm)	7 in. (178 mm)
<b>D</b>	35 in. (889 mm)	41.5 in. (1054 mm)	41.5 in. (1054 mm)
<b>E</b>	26.25 in. (667 mm)	33 in. (838 mm)	33 in. (838 mm)
<b>F</b>	17.5 in. (445 mm)	22 in. (559 mm)	22 in. (559 mm)
<b>G</b>	8.75 in. (222 mm)	11 in. (279 mm)	11 in. (279 mm)
<b>H</b>	4 in. (102 mm)	4 in. (102 mm)	4 in. (102 mm)
<b>I</b>	32.69 in. (830 mm)	41 in. (1041 mm)	41 in. (1041 mm)
<b>J</b>	25.07 in. (637 mm)	30.55 in. (776 mm)	30.55 in. (776 mm)
<b>K</b>	36.03 in. (915 mm)	45.21 in. (1148 mm)	45.21 in. (1148 mm)
<b>L</b>	29.3 in. (744 mm)	36 in. (914 mm)	36 in. (914 mm)
<b>M</b>	35.23 in. (895 mm)	43.6 in. (1107 mm)	43.6 in. (1107 mm)
<b>N</b>	41 in. (1041 mm)	51.47 in. (1307 mm)	51.47 in. (1307 mm)
<b>O</b>	47.09 in. (1196 mm)	57.29 in. (1455 mm)	57.29 in. (1455 mm)
<b>P</b>	41.16 in. (1045 mm)	50.34 in. (1279 mm)	50.34 in. (1279 mm)
<b>Q</b>	23.5 in. (597 mm)	28.5 in. (724 mm)	28.5 in. (724 mm)
<b>R</b>	31.5 in. (800 mm)	39.5 in. (1003 mm)	39.5 in. (1003 mm)
<b>S</b>	34.5 in. (876 mm)	42.5 in. (1080 mm)	42.5 in. (1080 mm)

Table 12

125, 140 and 175 Pound Models

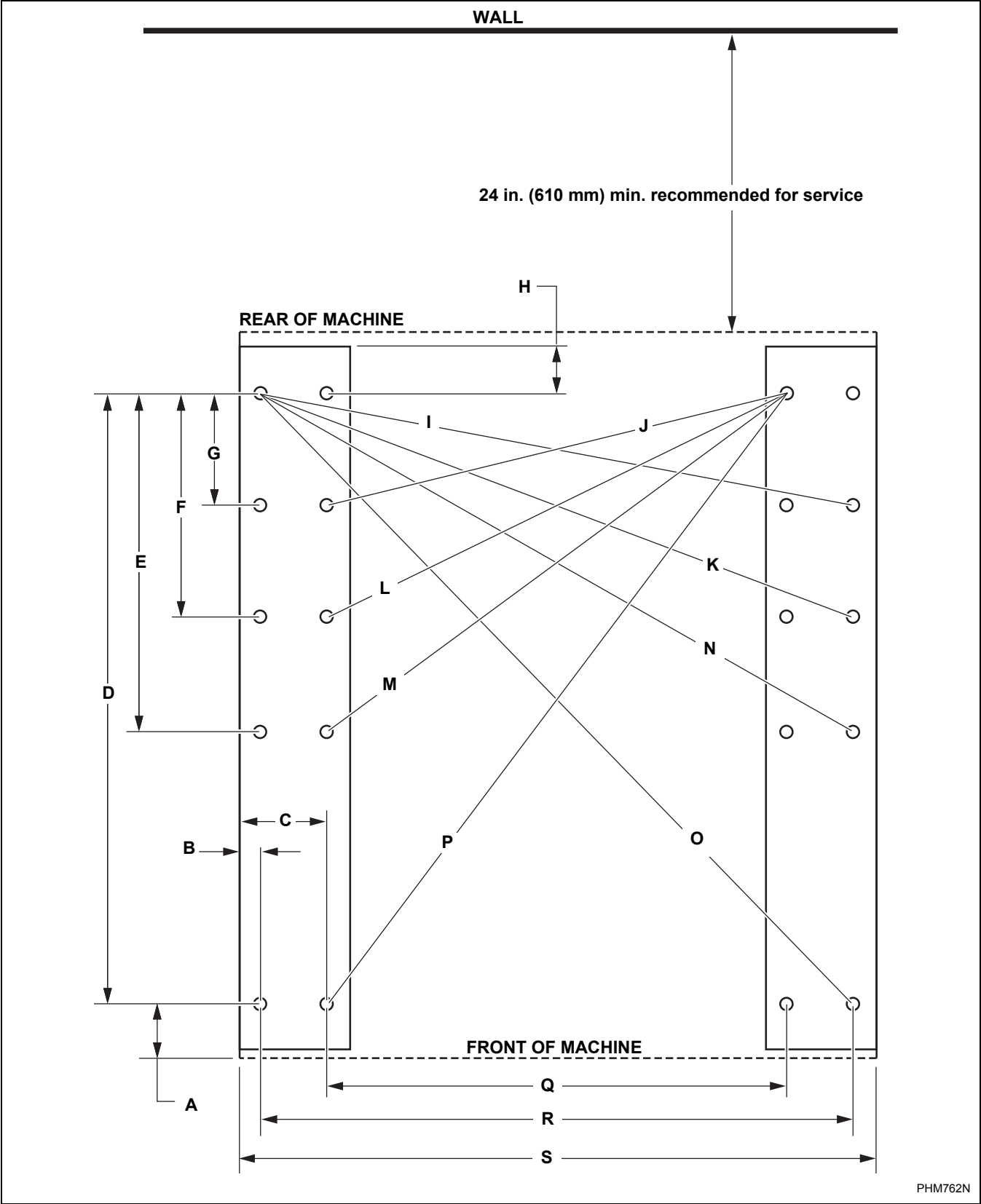


Figure 13

Model	125 Pound	140 Pound	175 Pound
	<b>H-Series</b>	<b>H-Series</b>	<b>H-Series</b>
<b>A</b>	3.93 in. (100 mm)	3.5 in. (89 mm)	2.5 in. (64 mm)
<b>B</b>	1.5 in. (38 mm)	1.5 in. (38 mm)	1.5 in. (38 mm)
<b>C</b>	7 in. (178 mm)	7 in. (178 mm)	7 in. (178 mm)
<b>D</b>	47.5 in. (1207 mm)	49 in. (1245 mm)	54 in. (1372 mm)
<b>E</b>	27 in. (686 mm)	27 in. (686 mm)	27 in. (686 mm)
<b>F</b>	18 in. (457 mm)	18 in. (457 mm)	18 in. (457 mm)
<b>G</b>	9 in. (229 mm)	9 in. (229 mm)	9 in. (229 mm)
<b>H</b>	3.5 in. (89 mm)	3.5 in. (89 mm)	1.5 in. (38 mm)
<b>I</b>	48.1 in. (1222 mm)	48.1 in. (1222 mm)	48.1 in. (1222 mm)
<b>J</b>	37.35 in. (949 mm)	37.35 in. (949 mm)	37.35 in. (949 mm)
<b>K</b>	50.56 in. (1284 mm)	50.56 in. (1284 mm)	50.56 in. (1284 mm)
<b>L</b>	40.47 in. (1028 mm)	40.47 in. (1028 mm)	40.47 in. (1028 mm)
<b>M</b>	45.2 in. (1148 mm)	45.2 in. (1148 mm)	45.2 in. (1148 mm)
<b>N</b>	54.42 in. (1382 mm)	54.42 in. (1382 mm)	54.42 in. (1382 mm)
<b>O</b>	67 in. (1702 mm)	68.07 in. (1729 mm)	71.75 in. (1822 mm)
<b>P</b>	59.75 in. (1518 mm)	60.95 in. (1548 mm)	68.27 in. (1734 mm)
<b>Q</b>	36.25 in. (921 mm)	36.25 in. (921 mm)	36.25 in. (921 mm)
<b>R</b>	47.25 in. (1200 mm)	47.25 in. (1200 mm)	47.25 in. (1200 mm)
<b>S</b>	50.25 in. (1276 mm)	50.25 in. (1276 mm)	50.25 in. (1276 mm)

Table 13

## Water Connection



### WARNING

**To prevent personal injury, avoid contact with inlet water temperatures higher than 125° Fahrenheit (51° Celsius) and hot surfaces.**

W748

Water service should have the following:

- Hot water temperature should be a maximum of 190°F (88°C).
- Water pressure should be between 30 and 85 psi (2 to 7 bar).
- Install screen filters in water supply lines to keep rust, grit or other foreign material out of solenoid valves.
- Suitable air cushions (risers) should be installed in supply lines to prevent “hammering.” Refer to *Figure 14*.

To connect water feeders to rear of machine, use flexible hoses. Because this is a vibrating machine, water lines must allow for movement or leaks may result. Hang hoses in a large loop behind machine so that they are not kinked or pinched.

For machines labeled with the CE mark, backsiphon protection devices must be installed previous of all machine water inlet valves in accordance with accepted European standards.

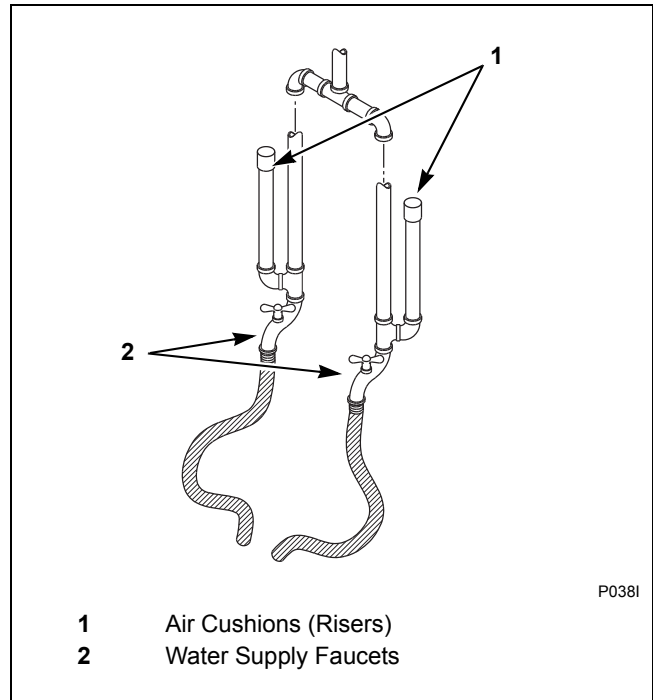


Figure 14



## Drain Connection Requirements

A flexible connection must be made to a vented drain system to prevent an air lock and to prevent siphoning.

**IMPORTANT: Machines must be installed in accordance with all local codes and ordinances.**

**IMPORTANT: The top of the vent must be 12 inches (304.8 mm) lower than bottom of inlet valves.**

If proper drain size is not available or practical, a surge tank is required. A surge tank along with a sump pump should be used when gravity drainage is not possible.

Increasing drain hose length, installing elbows or causing bends will decrease drain flow rate and increase drain times, impairing machine performance.

Drain Information							
Specifications	IPH40 IPM40	IPH60 IPM60	IPH80 IPM80	IPH100 IPM100	IPH125	IPH140 IPM140	IPH175
Overflow Size, in. (mm)	1.5 (38.1)	1.5 (38.1)	1.5 (38.1)	1.5 (38.1)	3 (76.2)	3 (76.2)	3 (76.2)
Drain connection size, I.D., in. (mm) with second drain	2 (50.8)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)	3 (76.2)
Number of drain outlets*	1	1	1	1	1	1	1
Drain flow capacity, gal/min. (l/min.)	30 (114)	70 (265)	60 (227)	65 (246)	125 (473)	125 (473)	125 (473)
Recommended drain pit size, ft <sup>3</sup> (l) †	5 (142)	12 (340)	9 (255)	11 (311)	36 (1019)	36 (1019)	36 (1019)

†Sized for one machine using high level.

\*Data reflects single drain, dual drain is optional.

Table 14

## Specifications and Dimensions

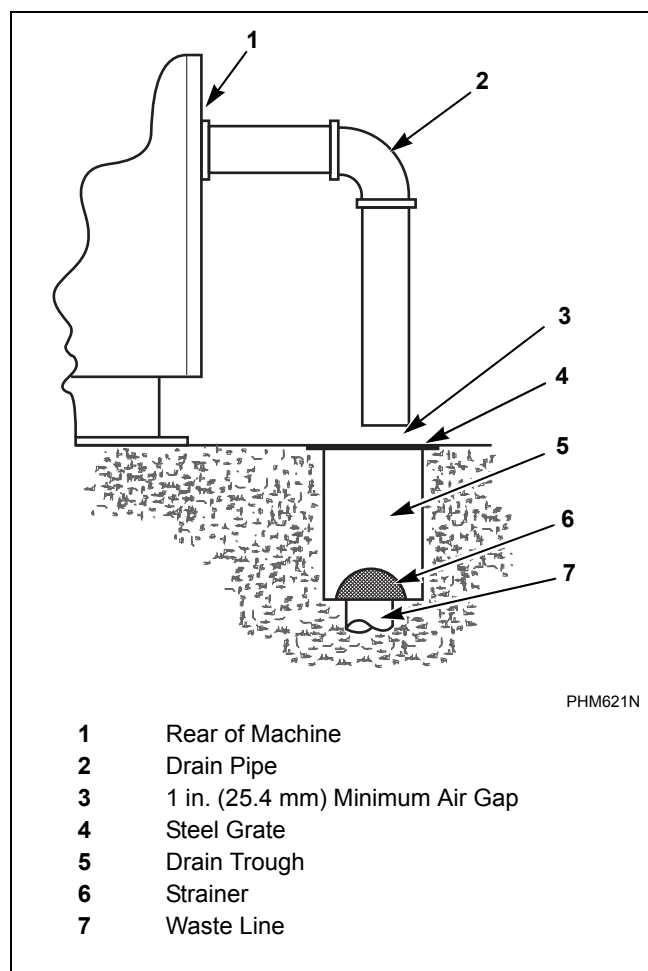




Figure 15


**NOTE: Installation of additional machine will require proportionately larger drain connections.**

## Electrical Installation Requirements

**IMPORTANT:** Electrical ratings are subject to change. Refer to serial decal for electrical ratings information specific to your machine.

	<b>WARNING</b>
<p>This machine must be installed, adjusted, and serviced by qualified electrical maintenance personnel familiar with the construction and operation of this type of machinery. They must also be familiar with the potential hazards involved. Failure to observe this warning may result in personal injury and/or equipment damage, and may void the warranty.</p>	
SW004	

	<b>WARNING</b>
<p>Dangerous voltages are present in the electrical control box(es) and at the motor terminals. Only qualified personnel familiar with electrical test procedures, test equipment, and safety precautions should attempt adjustments and troubleshooting. Disconnect power from the machine before removing the control box cover, and before attempting any service procedures.</p>	
SW005	


	<b>WARNING</b>
<p>Ensure that a ground wire from a proven earth ground is connected to the ground lug near the input power block on this machine. Without proper grounding, personal injury from electric shock could occur and machine malfunctions may be evident.</p>	
SW008	


Electrical connections are made at the rear of the machine. The machine must be connected to the proper electrical supply shown on the identification plate attached to the side of the control module.

**IMPORTANT:** Alliance Laundry Systems warranty does not cover components that fail as a result of improper input voltage.

The AC inverter drive requires a clean power supply free from voltage spikes and surges. Use a voltage monitor to check incoming power.

If input voltage measures above 230V for a 200V drive or above 460V for a 400V drive, ask the power company to lower the voltage. As an alternative, a step-down transformer kit is available from the distributor. Voltages above 240 and 480 require additional measures. Contact a qualified electrical maintenance person for assistance.

	<b>WARNING</b>
<p>Never touch terminals or components of the AC inverter drive unless power is disconnected and the “CHARGE” indicator LED is off. The AC inverter drive retains potentially deadly voltage for some time after the power is disconnected. There are no user-serviceable parts inside the AC inverter drive. Tampering with the drive will void the warranty.</p>	
SW009	


	<b>DANGER</b>
<p>When controlling the AC inverter drive with a parameter unit, the machine's computer and its safety features are bypassed. This would allow the basket to rotate at high speeds with the door open. When using a parameter unit to control the AC inverter drive, a large sign should be placed on the front of the machine warning people of the imminent danger.</p>	
SW003	

	<b>WARNING</b>
<p>This machine must be protected by a circuit breaker. <b>DO NOT USE FUSES!</b></p>	
W691	

## Specifications and Dimensions

The AC drive provides thermal overload protection for the drive motor. However, a separate circuit breaker or electrical supply disconnecting device must be installed for complete electrical overload protection. This prevents damage to the AC drive by disconnecting all legs if one should be lost accidentally.

**IMPORTANT: Do NOT use fuses in place of a circuit breaker.**

	<b>CAUTION</b>
<b>Do not use a phase adder on any variable-speed machine.</b>	
SW037	

The machine should be connected to an individual branch circuit not shared with lighting or other equipment.

The connection should be shielded in a liquid-tight or approved flexible conduit with proper conductors of correct size installed in accordance with the National electric Code or with applicable codes. The connection must be made by a qualified electrician using the wiring diagram provided with the machine or according to accepted European standards for machines labeled with the CE mark.

Use wire sizes indicated in *Table 15* for runs up to 50 feet (15.24 meters). Use next larger size for runs of 50 to 100 feet (15.24 to 30.48 meters). Use 2 sizes larger for runs greater than 100 feet (30.48 meters).

For personal safety and for proper operation, the machine must be grounded in accordance with local codes. If such codes are not available, grounding must conform with the National Electric Code, article 205-95 or accepted European standards for machines labeled with the CE mark. The ground connection must be made to a proven earth ground, not to conduit or water pipes.

## Circuit Breakers

The machines are to be connected to individual common trip circuit breakers. Use only UL 489 rated circuit breakers. Fuses are not to be used in any installations. (Fuses may fail separately causing a single-phase voltage condition.) A single-phase condition will cause the other lines to have a considerable change in current draw suddenly, which may cause the inverter to fail. Do not install more than one machine per breaker and do not install any other equipment on the breaker supplying the machine. If there is a “stinger” leg (also known as high leg, red leg, etc.) it must be connected to L3 of the terminal block of the machine. A line reactor is highly recommended.

## Grounding

	<b>WARNING</b>
<b>Failure to provide this equipment with a proper proven earth ground may result in a severe shock hazard and may increase EMI emissions.</b>	
W708	

All equipment should be grounded with a proven earth ground. Do not use water pipes or electrical conduit as an earth ground path. All grounding and wiring must conform to local and national electrical codes.

## Wire Size

Wire size must meet or exceed all codes for breaker size.

Use either SO type cord or flex conduit with stranded copper conductors of prescribed size for power supply between machine and wall. Because this machine vibrates in normal operation, hard conduit may become loose and cause wire abrasion and solid conductor wires may break during normal operation on vibrating machines.

Pocket Hardmount Electrical Specifications													
Voltage Designation						Standard				Electric Heat			
Model	Code	Voltage	Cycle	Phase	Wire	Full Load Amps	Breaker	AWG	mm <sup>2</sup>	Full Load Amps	Breaker	AWG	mm <sup>2</sup>
40H	N	380 – 480	50/60	3	3	4	15	14	2.5	29	35	8	10
	Q	200 – 240	50/60	3	3	8	15	14	2.5	56	60	6	16
	X	200 – 240	50/60	1/3	2/3	11	15	14	2.5	56	60	6	16
60H	N	380 – 480	50/60	3	3	6	15	14	2.5	29	35	8	10
	Q	200 – 240	50/60	3	3	11	15	14	2.5	84	90	3	25
	X	200 – 240	50/60	1/3	2/3	12	15	14	2.5	84	90	3	25
80H	N	380 – 480	50/60	3	3	8	15	14	2.5	31	35	8	10
	Q	200 – 240	50/60	3	3	15	20	12	4	87	110	2	35
100H	N	380 – 480	50/60	3	3	8	15	14	2.5	32	40	8	10
	Q	200 – 240	50/60	3	3	15	20	12	4	88	110	2	35
125H	N	380 – 480	50/60	3	3	10	15	14	2.5	Not Available			
	Q	200 – 240	50/60	3	3	19	30	10	6				
140H	N	380 – 480	50/60	3	3	11	15	14	2.5	Not Available			
	Q	200 – 240	50/60	3	3	20	30	10	6				
175H	N	380 – 480	50/60	3	3	15	20	12	4	Not Available			
40M	N	380 – 480	50/60	3	3	3	15	14	2.5	29	35	8	10
	Q	200 – 240	50/60	3	3	5	15	14	2.5	56	60	6	16
	X	200 – 240	50/60	1/3	2/3	9	15	14	2.5	56	60	6	16
60M	N	380 – 480	50/60	3	3	5	15	14	2.5	29	35	8	10
	Q	200 – 240	50/60	3	3	9	15	14	2.5	84	90	3	25
	X	200 – 240	50/60	1/3	2/3	11	15	14	2.5	84	90	3	25
80M	N	380 – 480	50/60	3	3	6	15	14	2.5	31	35	8	10
	Q	200 – 240	50/60	3	3	11	15	14	2.5	87	110	2	35
100M	N	380 – 480	50/60	3	3	7	15	14	2.5	32	40	8	10
	Q	200 – 240	50/60	3	3	12	15	14	2.5	88	110	2	35
140M	N	380 – 480	50/60	3	3	8	15	14	2.5	Not Available			
	Q	200 – 240	50/60	3	3	16	20	12	4				
NOTE: Wire-size based on: NFPA 70 (NEC), Table 310.16, 75°C Column. No more than three current carrying conductors per raceway. Use copper conductors only. Use circuit breakers only. Do not use fuses. Suggested breaker size based on NFPA 70, Section 240.6. Contact local authority having jurisdiction for additional information. Local electrical codes supersede all suggestions of this table. Follow all local electrical codes. Local is defined as place of machine installation.													

Table 15

## Specifications and Dimensions

### Making Connections to Machine

After electrical service feeder has been installed and electrical service voltage verified by a volt meter, follow this procedure to connect service to the equipment.

1. Remove screw securing electrical service connection panel and remove panel from machine.
2. Install an appropriate strain relief or conduit connector in cover.
3. Feed wire through connector leaving about 6 in. (150 mm) pigtails on inside of cover. Strip about 3/8 in. (10 mm) insulation off the end of each wire.
4. Tighten strain relief or conduit connector in place.
5. Connect ground wire to ground terminal at electrical service connections on machine.
6. Connect L1, L2 and L3 to terminal block provided at electrical service connections on machine.
7. Reinstall panel onto rear of machine and tighten cover screw.

### Adjusting Control Transformer Taps

Adjust control transformer to deliver correct voltage to machine controls.

1. Measure line-to-line voltage to be supplied to machine with a volt meter.
2. Refer to the schematic supplied with machine and locate transformer terminal chart.
3. In this chart, locate the primary voltage range, which corresponds to line voltage measured above, and note terminals which would be used on primary.
4. In the chart, locate the secondary terminals corresponding to line voltage. If line voltage is not in chart, round it up to the next higher voltage, which is in the chart, or contact a service technician for assistance.
5. Remove two screws holding rear electrical enclosure in place and remove rear electrical enclosure cover.
6. Locate control transformer in enclosure – the primary is on the right of the transformer and the secondary terminals are on the left. Make sure terminals are connected to primary and secondary terminals selected in steps 3 and 4.

7. Power up machine temporarily and, using a volt meter, verify the voltage on transformer secondary is between 100 and 130 VAC.

### Provisions for 50 Hz Installations

If machine is to be installed on a 50 Hz power system, adjust control transformer taps as described in *Adjusting Control Transfer Taps* section. Then change drain valve wiring as follows:

1. Disconnect power from machine. Follow lock-out/tag-out procedures.
2. Remove lower rear panel to access drain valves.
3. Snap black plastic cover off of each drain valve motor by locating and squeezing two tabs on each cover.
4. On each drain valve motor there are three terminals (labeled 60 Hz, 50 Hz and N). Locate these terminals.
5. On each drain valve motor, move wire from 60 Hz tap to 50 Hz tap. There should be wires on 50 Hz terminal and N terminal.
6. Reinstall black plastic motor covers.
7. Reinstall rear panel.
8. Reconnect power to machine.

**NOTE: If the proper tap on drain valve motor is not selected it will run hot and will be damaged.**

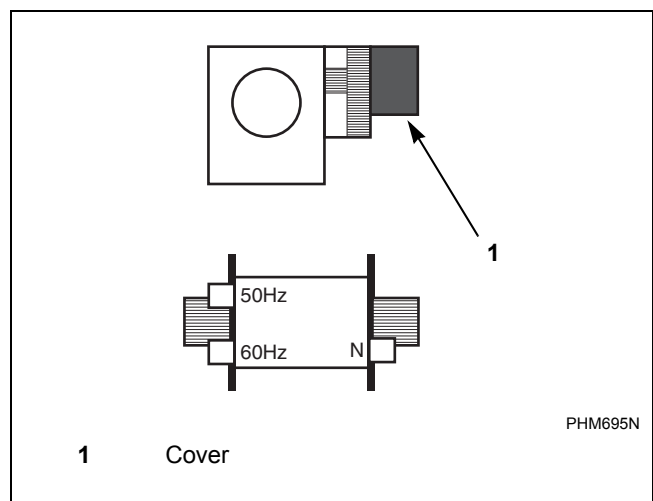


Figure 16

## Steam Requirements (Steam Heat Option Only)



### WARNING

**Hot Surfaces. Will cause severe burns. Turn steam off and allow steam pipes, connections and components to cool before touching.**

W505


For machines equipped with optional steam heat, install piping in accordance with approved commercial steam practices. Steam requirements are shown in *Table 16*.

**NOTE: Failure to install supplied steam filter may void warranty.**

Steam Supply Information						
	40	60	80	100	125	140/175
Steam inlet connection, in. (mm)	1/2 (DN13)	1/2 (DN13)	1/2 (DN13)	1/2 (DN13)	3/4 (DN19)	3/4 (DN19)
Number of steam inlets	1	1	1	1	1	1
Recommended pressure, psi (bar)	30 – 80 (2 – 5.5)	30 – 80 (2 – 5.5)	30 – 80 (2 – 5.5)	30 – 80 (2 – 5.5)	30 – 80 (2 – 5.5)	30 – 80 (2 – 5.5)
Maximum pressure, psi (bar)	80 (5.5)	80 (5.5)	80 (5.5)	80 (5.5)	80 (5.5)	80 (5.5)

Table 16

## Chemical Injection Supply System



### WARNING

**Dangerous Chemicals. May damage eyes and skin. Wear eye and hand protection when handling chemicals; always avoid direct contact with raw chemicals. Read the manufacturer's directions for accidental contact before handling chemicals. Ensure an eye-rinse facility and an emergency shower are within easy reach. Check at regular intervals for chemical leaks.**

W363

**IMPORTANT:** Undiluted chemical dripping can damage the machine. All chemical injection supply dispenser pumps and dispenser tubing should be mounted below the washer's injection point. Loops do not prevent drips if these instructions are not followed. *Figure 17* shows a typical chemical injection supply system.

**IMPORTANT:** Failure to follow these instructions could damage the machine and void the warranty.

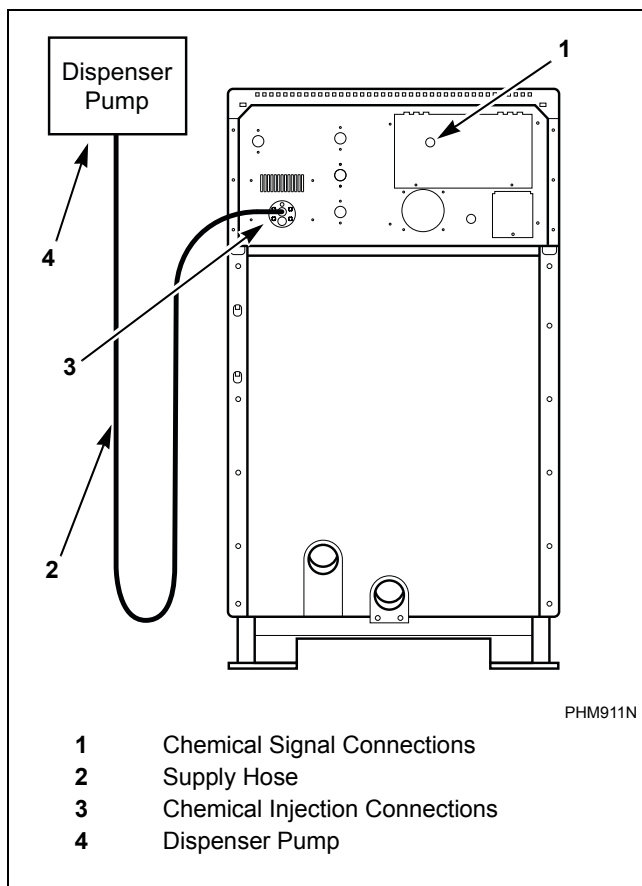


Figure 17

## Chemical Service Connections

Chemical service connections are located inside the machine's rear electrical enclosure. Provisions include:

- Clearly marked chemical signal locations.
- Chemical signals are prewired for 85 VAC signals (85 VAC on, 0 VAC off) and can be easily changed to accommodate dry contact chemical signal formats.
- Up to 12 chemical signals are available.
- A timer hold input is available for use with dispensing systems feeding multiple machines.
- 7/8 in. (22 mm) hole is provided in rear electrical panel cover for mounting a typical chemical pump interface module or feeding chemical pump control signal wires.

## Connection of Chemical Supply Hoses

To connect a chemical supply hose to machine:

1. Remove one of the plastic plugs from an injection port.
2. Screw one of the six 3/8 in. (10 mm) nipples supplied with machine into open injection port.
3. Connect feed hose to nipple and secure hose with a hose clamp.
4. Ideally, pump system should be mounted so that it is lower than chemical injection ports. Hose connections at injection port should be highest point in hose to prevent chemical drippage. Refer to *Figure 17*.

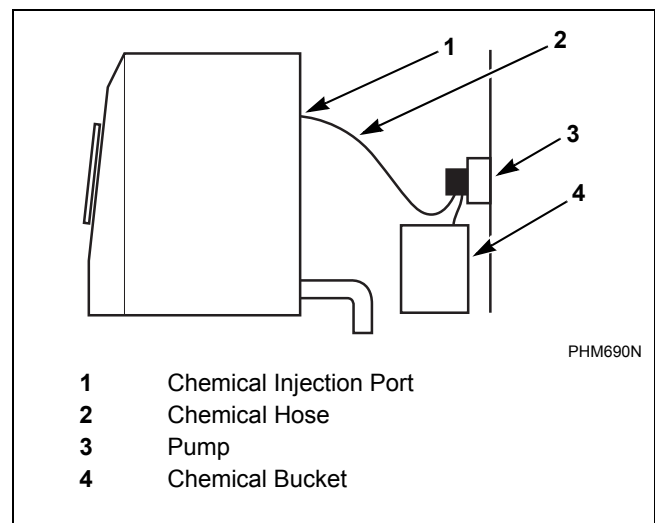


Figure 18



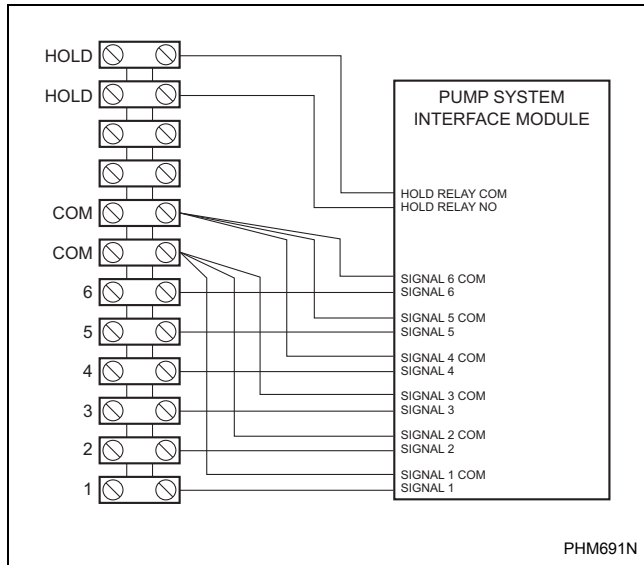


Figure 19

### Connection of Chemical Pump Signals

To connect pump control to AC voltage signals, do the following:

1. Remove large rear electrical module cover on machine to access chemical terminals.
2. Mount pump system interface module using 7/8 in. (22 mm) hole in cover so that box will be on outside of machine when panel is reinstalled.
3. Connect pump system signal wires 1 through 6 to terminals 1 through 6 on the machine chemical signal terminal block.
4. Connect all pump system signal common wires to two machine chemical signal terminals labeled “COM” (it is recommended to connect three wires to each COM terminal as drawn in *Figure 19* – each terminal can accommodate up to three 16 AWG wires).
5. If a chemical timer hold function is being used (this is common on solid supply systems connected to multiple machines), connect hold relay common terminal to one of two “HOLD” terminals. Connect chemical hold relay normally open wire to remaining “HOLD” terminal as shown in diagram.
6. Reinstall rear electrical module cover with chemical system interface module mounted on it.
7. Finish pump system installation per its manufacturer’s instructions.

**NOTE:** Consult factory service or distributor for assistance with dry contact format signals (to drive pumps directly, for example).



### WARNING

***This machine is not designed to provide power for a chemical pump system! Connecting such a load to the machine’s controls may overload the control transformer! Never connect power for any device to the machine’s main power terminal block – this is a violation of the NEC and other electrical regulations.***

W692

# First Start-Up

**IMPORTANT: The following safety checks are to be performed BEFORE initial start-up.**

1. Make sure all electrical and plumbing connections have been made in accordance with applicable codes and regulations.
2. Make sure machine is electrically grounded. **This is a high leakage current device!** Improper grounding can cause electrical shock hazards and EMI problems.
3. Make sure all service connections (water, drain, electrical, steam, etc.) to equipment are flexible and are of correct size, length and type. Make sure there are no kinks and that all clamps and attachment points are secure.
4. Make sure all transport brackets have been removed (where applicable).
5. Make sure machine is properly grouted to floor and leveled. Always allow plenty of time for grout to cure before tightening anchor bolts and running machine.
6. Make sure anchor bolts have been tightened properly.

**IMPORTANT: The following safety checks are to be performed DURING the initial start-up. Contact a qualified technician if necessary.**

1. Verify door lock system works properly. Do this by checking if machine starts a cycle with loading door open or loading door can be opened while machine is in operation.
2. Verify machine does not move or vibrate excessively. Do this by loading machine with a small load of laundry (about half capacity) and running a program with a high-speed extract. The machine should be reasonably quiet and still during the extract.

# Operation

## General Operation Instructions

1. Open door.
2. Load to capacity. DO NOT OVERLOAD.

### WARNING

Be careful around the open door, particularly when loading from a level below the door. Impact with door edges can cause personal injury.

SW025

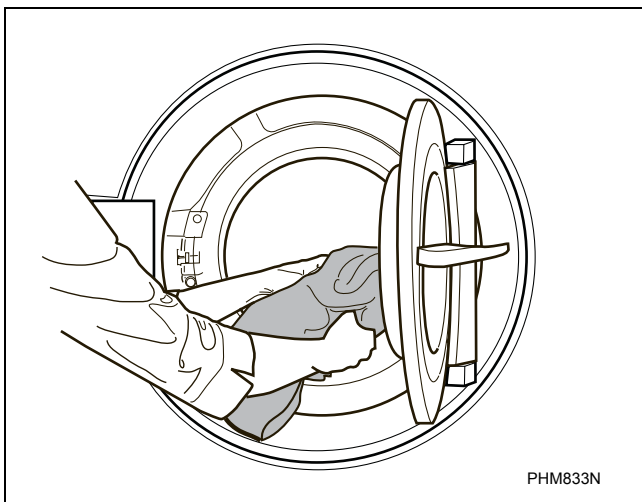


Figure 20

3. Close and lock door.

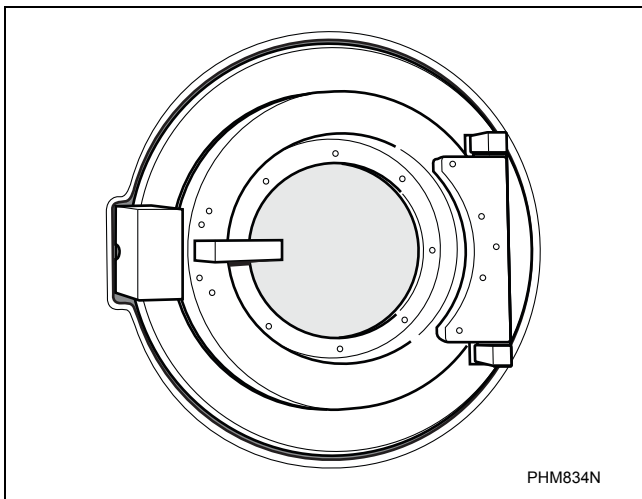


Figure 21

4. Enter number of desired program.

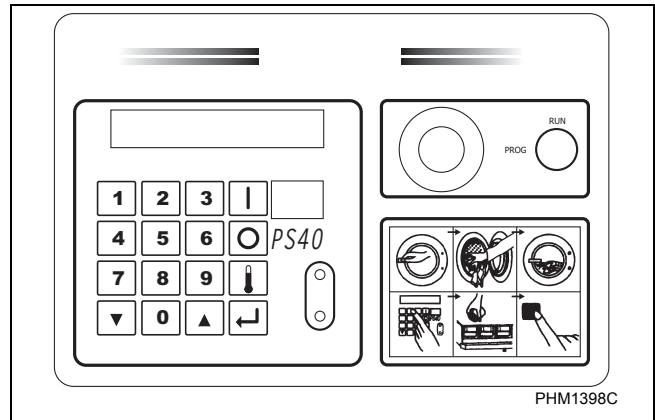


Figure 22

5. Fill dispenser cups with appropriate chemicals, if necessary.

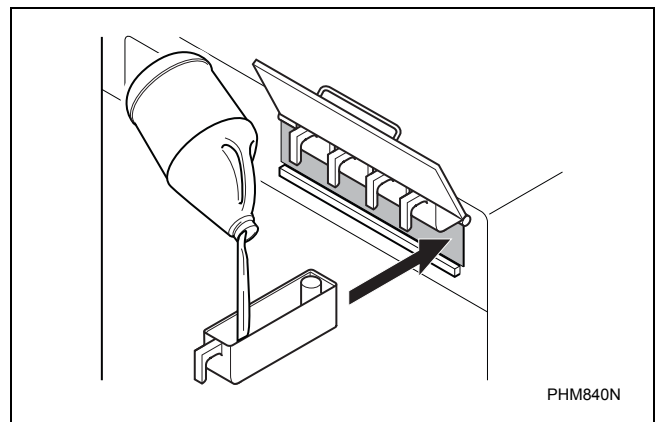


Figure 23

6. Press START button.

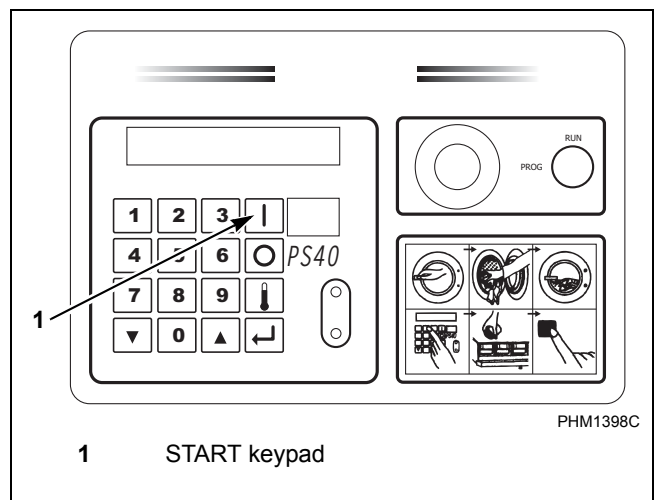



Figure 24


## Operation


7. Machine door will automatically lock and cycle will begin.
8. When program is completed, display will display “open door” and door will automatically unlock and is ready to be opened.

	<b>WARNING</b>
<p><b>The PS40's fault codes indicate potentially hazardous operating conditions. If a Fault occurs the machine should be shut off and locked out until a service technician can repair the machine. All fault codes are indicated by a flashing “Fn” display. Where ‘F’ indicates a fault condition, and ‘n’ indicates the particular fault number.</b></p> <p style="text-align: right;">W687</p>	

# Maintenance


Maintenance procedures described below will prolong life of machine and help prevent accidents.

	<b>WARNING</b>
<b>Sharp edges can cause personal injury. Wear safety glasses and gloves, use proper tools and provide lighting when handling sheet metal parts.</b>	
W366R1	

	<b>CAUTION</b>
<b>Replace all panels that are removed to perform service and maintenance procedures. Do not operate the machine with missing guards or with broken or missing parts. Do not bypass any safety devices.</b>	
SW019	

## Daily

### Beginning of Day

	<b>WARNING</b>
<b>Do not spray the machine with water. Short circuiting and serious damage may result.</b>	
W782	


1. Check door interlock before starting operation:
  - a. Attempt to start with door open. Machine should not start.
  - b. Close door without locking it and attempt to start. Machine should not start.
  - c. Close and lock door and start a cycle. Attempt to open door. Door should not open.

If door lock and interlock are not functioning properly disconnect power and call a service technician.

**IMPORTANT: Door lock should be checked daily to ensure proper operation. Also, check that all safety and instruction labels are on the machine. Replace as necessary.**

2. Inspect water inlet valve hose connections on back of machine for leaks.

3. Inspect steam hose connections for leaks (where applicable).


	<b>WARNING</b>
<b>To reduce the risk of electrical shock, serious injury or death, disconnect the electrical power to washer-extractor before examining the wiring.</b>	
W636	

4. Inspect all chemical inlets, lines and connections for leaks.
5. Verify insulation is intact on all external wires and all connections are secure. If bare wire is evident, call a service technician.

### End of Day

1. Clean AC drive filter:
  - a. Remove external plastic cover which contains filter.
  - b. Remove foam filter from cover.
  - c. Wash filter with warm water and allow to air dry. Filter can be vacuumed clean.

**IMPORTANT: The control module cover and fan filter must be in place for the fan to properly cool the AC inverter drive. Failure to observe this warning will void the warranty and could lead to expensive AC inverter drive repair.**

	<b>WARNING</b>
<b>Do not clean the cooling fans with compressed air! Doing this spins the fan too fast and will cause premature fan failures.</b>	
W695	

2. Clean door gasket of residual detergent and all foreign matter.
3. Clean supply cup dispenser and lid inside and out with mild detergent. Rinse with clean water.
4. Clean machine's top, front and side panels with mild detergent. Rinse with clean water.

**NOTE: Unload machine promptly after each completed cycle to prevent moisture buildup. Leave loading door open at end of each completed cycle to allow moisture to evaporate.**

## Maintenance

### Weekly

1. Check machine for leaks.
  - a. Start an unloaded cycle to fill machine.
  - b. Verify that door and door gasket do not leak.
  - c. Verify that drain valve is operating and that drain system is free from obstruction. If water does not leak out during prewash segment, drain valve is closed and functioning properly.

### Monthly

**NOTE: Disconnect power to machine at its source before performing monthly maintenance procedures.**

Keep the following lubricants on hand for periodic maintenance of machine.

<b>Main Bearings</b>	Shell Alvania® 71125 Grease
<b>Motor</b>	Motor bearings are sealed and do not require service.
<b>Door Latch</b>	Silicon Spray Grease
<b>Door Handle</b>	Silicon Spray Grease

Table 17

1. Each month or after 200 hours of operation, lubricate bearings using grease fittings located in upper rear panel. Pump grease gun slowly, using full strokes. Use the following schedule to determine number of strokes to use for machine.

Machine type	Number of strokes per month or 200 hours of operation	
	Front Bearing	Rear Bearing
40M, 60M	2	1
40H, 60H, 80M, 100M	2	2
80H, 100H, 125H, 140M	3	2
140H, 175H	4	2

Table 18

The grease must have the following characteristics:

- NLGI Grade 2  
(Recommended: Shell Alvania® #71125)
- Lithium-based
- Water-insoluble
- Anti-rusting
- Anti-oxidizing
- Mechanically stable

The grease must have adequate base oil viscosity with one of the following ratings:

- ISO VG 150 (709 – 871 SUS at 100°F or 135 – 165 cSt at 40°C)
- ISO VG 220 (1047 – 1283 SUS at 100°F or 198 – 242 cSt at 40°C)
- An SAE 40 rating is also acceptable as long as cSt or SUS values are within specified ranges.



### WARNING

**Never mix grease types (Ex. Silicon, Petroleum, Lithium, Poly-Urea)! Never use any grease other than that specified at the grease fittings on the machine. Doing so may cause premature bearing failure and void any applicable warranties.**

W694

If machine is fitted with SKF System 24® automatic lubricators, check that they are functioning by noting piston position each month. Set them to dispense their contents over 12 months for all machine models. Always mark new lubricators with installation date.

2. Inspect drive belts for uneven wear, frayed edges or cracking. Push on belts and make sure motor can move about its pivot point (this ensures belts are automatically being tensioned correctly).

3. Verify V-belts are properly aligned by checking pulley alignment. Place a straight edge across both pulley faces. The straight edge should make contact with pulleys in two places. Refer to *Figure 25*.

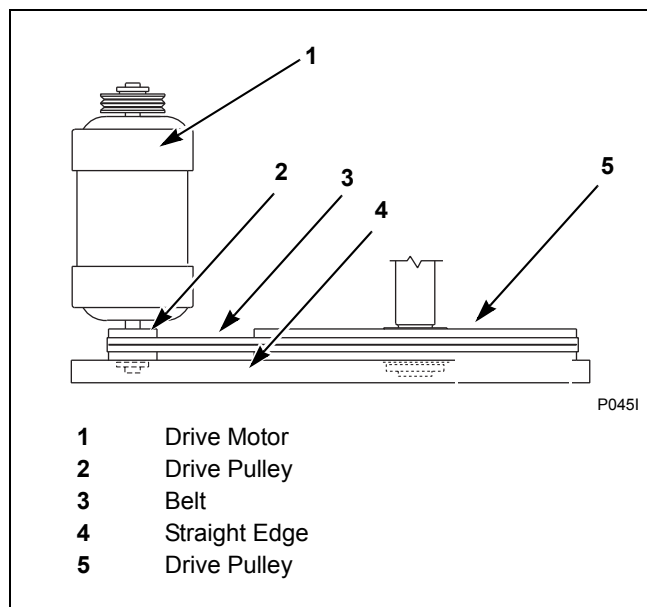


Figure 25

4. Check all hoses for leaks, cracking and deterioration.
5. Check supply dispenser hoses and hose connections for leaks.
6. Clean inlet hose filter screens:
  - a. Turn water off and allow valve to cool, if necessary.
  - b. Unscrew inlet hose and remove filter screen.
  - c. Clean with soapy water and reinstall. Replace if worn or damaged.
7. Tighten motor mounting bolt locknuts and bearing bolt locknuts, if necessary.
8. Verify that motor plate mounting bolt is tight but plate is free to pivot.
9. Use compressed air to clean lint from motor.
10. Clean interior of machine, both basket and shell, by wiping with a water-soaked sponge or cloth.
11. Use compressed air to ensure that all electrical components are free of moisture and dust.
12. Remove chemical supply components and check for residual chemicals. Clean as necessary and replace.

## Quarterly

**NOTE: Disconnect power to washer-extractor before performing quarterly maintenance procedures.**

1. Tighten door hinges and fasteners, if necessary.
2. Tighten anchor bolts, if necessary.
3. Verify that drain motor shield is in place and secure.
4. Check all painted surfaces for bare metal.
  - a. If bare metal is showing, paint with primer or solvent-based paint.
  - b. If rust appears, remove it with sandpaper or by chemical means. Then paint with primer or solvent-based paint.
5. Clean steam filter, where applicable.
  - a. Turn off steam supply and allow time for valve to cool.
  - b. Unscrew nut.
  - c. Remove element and clean.
  - d. Replace element and nut.

### Care of Stainless Steel

- Remove dirt and grease with detergent and water. Thoroughly rinse and dry after washing.
- Avoid contact with dissimilar metals to prevent galvanic corrosion when salty or acidic solutions are present.
- Do not allow salty or acidic solutions to evaporate and dry on stainless steel. Wipe clean of any residues.
- Rub in direction of polish lines or “grain” of stainless steel to avoid scratch marks when using abrasive cleaners. Use stainless steel wool or soft, non-metal bristle brushes. Do not use ordinary steel wool or steel brushes.
- Remove discoloration or heat tint from overheating by scouring with a powder or by employing special chemical solutions.
- Do not leave sanitizers or sterilizing solutions on stainless steel equipment for prolonged periods of time.
- When an external chemical supply is used, ensure no siphoning of chemicals occurs when machine is not in use. Highly concentrated chemicals can cause severe damage to stainless steel and other components with machine. Damage of this kind is not covered by manufacturer’s warranty. Locate pump below machine’s injection point to prevent siphoning of chemicals into machine.
- If stainless steel appears to be rusting the source of the rust may actually be an iron or steel part not made of stainless steel, such as a nail or screw.



# Disposal of Unit

This appliance is marked according to the European directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Refer to *Figure 26*. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. Ensuring this product is disposed of correctly will help prevent potential negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact the local city office, household waste disposal service, or the source from which the product was purchased.

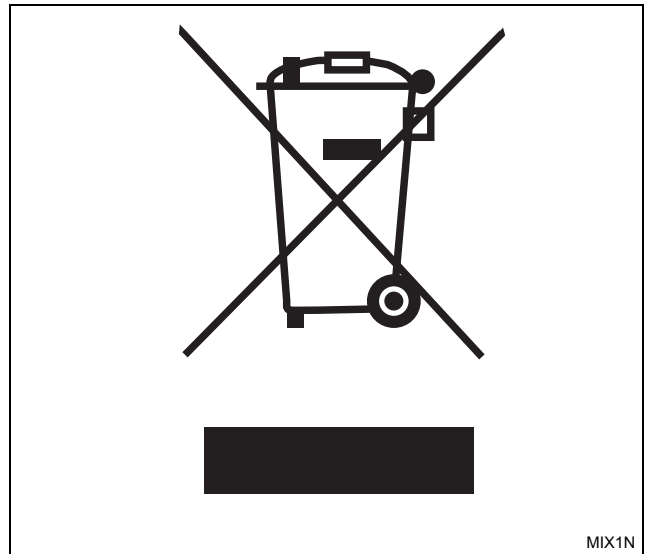


Figure 26





